



# Functional Food & Nutraceutical Technologies in Canada

## Disclaimer

This listing is for information purposes only and does not constitute an endorsement. All of the information in the database has been provided by the companies themselves. The Government of Canada and its employees, servants or agents make no representations or warranties as to the accuracy, completeness, currency or reliability of the information contained in the database. Parties who rely on the information do so at their own risk. Any views expressed are those of the originators and do not necessarily represent the opinions of Agriculture and Agri-Food Canada or the Government of Canada.

# **Functional Food and Nutraceutical Technologies in Canada (Profiles of Companies and Research Centres)**

## **1. Summary Chart**

## **2. Food and Food Ingredients**

## **3. Nutritional Supplements**

## **4. Medicinal Products**

## **5. Research Centres**

# Summary Chart

**Alphabetical listing of companies, profile summaries  
and corresponding product areas**

## **FUNCTIONAL FOOD & NUTRACEUTICAL TECHNOLOGIES IN CANADA 2004**

| Organization  | Nature of Business  | Current Activities  | Partnering Interests                                      | Product Areas* |   |   |   |
|---|---|---|---|----------------|---|---|---|
|   |   |   |   | F              | N | M | R |
| <b>AAFC/ Atlantic Food and Horticulture Research Centre</b><br>Kentville, NS<br>Employees: 85 | Develops new technologies for producing, adapting, protecting and processing horticultural crops                    | Research on functional properties of blueberries; Development of value added health and food products from wild blueberries including fortifiers, antioxidants, and colorants   | Investment partners interested in research collaborations |                |   |   | ● |
| <b>AAFC/ Eastern Cereal and Oilseed Research Centre</b><br>Ottawa, ON<br>Employees: 318       | Develops new cereal and oilseed varieties, and crop protection and management systems                               | Maintenance of crop databases and reference guides; Isolation, fractionation, characterization, and selection of value-added components of cereal crops; Analysis of crop quality and seed composition                              | Investment partners interested in research collaborations |                |   |   | ● |
| <b>AAFC/ Food Research &amp; Development Centre</b><br>Saint-Hyacinthe, QC<br>Employees: 144  | Conducts food research in the areas of bio-ingredients, dairy industry, meat industry, food preservation technology | Research projects: dairy and meat technology, packaging and preservation, bio-ingredients including flavours and colourants, nutraceuticals, probiotics   | Investment partners interested in research collaborations |                |   |   | ● |
| <b>AAFC/ Greenhouse and Processing Crops Research Centre</b><br>Harrow, ON<br>Employees: 105  | Research and field evaluation of crops; One of largest greenhouse research complexes in Canada                      | Research on soybeans involving biochemistry/molecular biology, tissue culture and field studies   | Investment partners interested in research collaborations |                |   |   | ● |
| <b>AAFC/ Pacific Agri-Food Research Centre</b><br>Summerland, BC<br>Employees: 35             | Studies fundamental chemical, physical, sensory and microbiological properties of plants                            | Research on: antioxidative activity of plant compounds; Characterization and assessment of secondary metabolites from plants; Development of novel processes for extraction and purification  | Investment partners interested in research collaborations |                |   |   | ● |
| <b>AAFC/ Saskatoon Research Centre</b><br>Saskatoon, SK<br>Employees: 20                      | Develops processes to produce value-added products and investigates alternative commercial applications for crops   | Research on: flavonoids, sterols, terpenes, phenolics and alkaloids; Crop fractionation and processing of bio-oils; Use of flaxseed lignan in treatment of arteriosclerosis, hypercholesterolemia, endotoxic shock, diabetes, lupus | Investment partners interested in research collaborations |                |   |   | ● |

\*Product Areas: F = Food and Food Ingredients; N = Nutritional Supplements; M = Medicinal Products; R = Research Centres

<sup>1</sup> N/A: Not applicable

| Organization  | Nature of Business   | Current Activities   | Partnering Interests  | Product Areas*   |     |     |     |
|---|--|--|---|------------------|-----|-----|-----|
|   |  |  |   | F                | N   | M   | R   |
| <b>AAFC/ Southern Crop Protection &amp; Food Research Centre</b><br>London, ON<br>Employees: 22 | Research and development of probiotics, functional foods; transgenic plant technology  | Development and pilot scale production of high value pharmaceutical proteins in transgenic plants; Cultivation of medicinal plants such as ginseng, evening primrose, and feverfew   | Investment partners interested in research collaborations   |                  |     |     | ●   |
| <b>AAFC/Food Research Program (FRP)</b><br>Guelph, ON<br>Employees: 50                          | Develops and ensures safe and health promoting foods which reduce health care costs and provide new added value commercial opportunities | Investigation of effects of processing and extraction methods on isoflavones and Antioxidants (plant polyphenols) in food Commodities grown in Southern Ontario; Evaluation of isoflavones, antioxidants such as lycopene, and CLA for efficacy of health promotion and disease risk reduction | Investment partners interested in research collaborations   |                  |     |     | ●   |
| <b>Acadian Seaplants</b><br>Dartmouth, NS<br>Employees: 310                                     |  |  | Acadian Seaplants Limited is interested in exploring R&D opportunities; specifically new product development and research projects involving marine plants.   | ●                | ●   |     |     |
| <b>Advitech Solutions Inc.</b><br>Vanier, QC<br>Sales: \$ 4.0 M<br>Employees: 41                | Develops, manufactures and markets specialized ingredients for nutritional, pharmaceutical and cosmetic uses                             | Manufacturing dairy-based products, nutritional supplements, diet products and functional foods; Research on enzymatic hydrolysis, fractionation and purification of milk protein and bio-active peptides  | Alliances for: research on milk proteins; development of milk-based nutraceutical and functional foods ; Manufacturing and packaging of ingredients having nutraceutical and functional food applications | •                | •   |     |     |
| <b>Agricore United</b><br>Winnipeg, MB<br>Sales: > \$ 3.0 B<br>Employees: 2,000                 | Farmer-owned cooperative; Handles and markets grain, seeds and oilseeds; Agronomic research  | Crop research: laboratory and field testing of grains, canola and other crops ; Developing new varieties of annual cereal, pulse and oilseed crops for value-added processing  | Supply agreements with processors and functional food companies looking for specific, high quality raw materials  | •                |     |     |     |
| <b>Ag-West Bio Inc., Health &amp; Nutrition Division</b><br>Saskatoon, SK                       | Promote the growth of the functional foods & nutraceuticals industry by assisting and supporting AWB members.                            | Information services and member assistance services for strategic alliance and R&D; domestic and international contacts in government, regulatory, production, processing, manufacturing and distribution  | Seeking to establish collaborative agreements with similar organizations in Canada and internationally  | N/A <sup>1</sup> | N/A | N/A | N/A |

\*Product Areas: F = Food and Food Ingredients; N = Nutritional Supplements; M = Medicinal Products; R = Research Centres

<sup>1</sup> N/A: Not applicable

| Organization   | Nature of Business   | Current Activities   | Partnering Interests   | Product Areas* |   |   |   |
|--|--|--|--|----------------|---|---|---|
|  |  |  |  | F              | N | M | R |
| <b>Alta Natural Herbs &amp; Supplements Ltd.</b><br>Richmond, BC<br>Sales: \$ 4.2 M<br>Employees: 20 | Production, distribution, marketing and sales of selective herbal and organic food supplements                               | Manufactures specialty shark and other marine based products and herbal products; Other products: essential oils, chitin, chitosan, glucosamine  | Seeking partners for the commercialization of its products and organizations interested in financing company activities  |                | ● | ● |   |
| <b>API Grain Processors</b><br>Red Deer, Alberta<br>Sales: > \$ 25 M<br>Employees: 40                | Grain processing facility that uses wheat to produce flour, vital wheat gluten, fuel grade ethanol and livestock feed        | Produces bakery flour, vital wheat gluten, fuel grade ethanol, and livestock feed  | Seeking partnership agreement with a large nutraceutical company; Has available a large quantity of soluble and insoluble fibre  | ●              |   |   |   |
| <b>Ashbury Biologicals Inc.</b><br>Toronto, ON<br>Sales: \$ 1-5 M<br>Employees: 5                    | Developer, manufacturer and distributor of standardized, certified natural medicines   | Research on novel medicinal products; Developing single chemical entities and chemical compounds from herbal/botanical origins for prevention and treatment of major disease states  | Collaborations for research and development of traditional botanical medicines; Contract agreements for research and analytical method development                                   |                |   | • |   |
| <b>Atlantic Marine Products</b><br>Catalina, NF<br>Sales: \$ 0.5 M<br>Employees: 70-100              | Develops, manufactures, and markets seal products including food grade oil, dressed pelts, and meat                          | Exporting seal oil to Asia, efforts focused on new market development for encapsulated oil, investigating potential of the chitin and chitosan market; looking to expand nutraceutical product base through processing of other marine by-products | Alliances with companies seeking supply of processed marine by-products, Private labeling agreements; Research collaborations  |                | • |   |   |
| <b>Atrium Biotechnologies Inc.</b><br>Quebec, QC<br>Sales: \$ 6.2 M<br>Employees: 17                 | Develops and markets innovative cosmetics and nutritional ingredients by establishing research and distribution partnerships | Divisions: Dietary Supplements – develop, manufacture and distribute products extracted from animal and marine biomass. Cosmetics – develop, manufacture, and market natural active ingredients that help attenuate signs of aging                 | Joint ventures for development of new active ingredients from animal or marine biomass; Distribution or licensing agreements for dietary supplements and cosmetic active ingredients |                | • | • |   |
| <b>Ben-Don Innovations Inc.</b><br>Saskatoon, SK<br>Sales: >\$500,000<br>Employees: 9                | Researches, develops and markets innovative agricultural technology  | Consults with food processing companies to research and analyze current process equipment; Develop machines and processes for the industry   | Seeking strategic partners in herb production, research and marketing  |                |   | • |   |
| <b>Bio-K + International Inc.</b><br>Laval, Quebec<br>Sales: \$4,000,000<br>Employees: 39            | Producer and distributor of live bacterial culture using milk subtract as carrier  | Bio-K+ is currently being sold in all provinces across Canada, the U.S.A and Puerto Rico   | Seeking distributors in Mexico, Brazil, Argentina, Chile, New England, Holland, Germany and France.  | •              |   |   |   |

\*Product Areas: F = Food and Food Ingredients; N = Nutritional Supplements; M = Medicinal Products; R = Research Centres

<sup>1</sup> N/A: Not applicable

| Organization   | Nature of Business  | Current Activities   | Partnering Interests  | Product Areas* |   |   |   |
|--|---|--|---|----------------|---|---|---|
|  |   |  |   | F              | N | M | R |
| <b>Bioriginal Food &amp; Science Corp.</b><br>Saskatoon, SK<br>Employees: 80                         | Manufactures clinically proven essential fatty acids (EFAs).  | Research activities with various partners.   |   | ●              | ● |   |   |
| <b>Blue Hills Herb Farm</b><br>Regina, SK<br>Sales: < \$ 0.02M<br>Employees: 6                       | Producer and cultivator of a medicinal herb;<br><i>Echinacea Angustifolia</i>   | Cultivation and harvesting of <i>Echinacea Angustifolia</i> ; Feasibility studies of other medicinal crops for commercial scale operations   | Seeking long term supply, research and development opportunities to collaborate with processors and distributors of root material   |                |   | ● |   |
| <b>British Columbia Functional Food &amp; Nutraceutical Network</b><br>Vancouver, BC<br>Employees: 2 | Provider of services and research and development to the nutraceutical industry in British Columbia                       | Provides access to information and networking through workshops; Compiles a source book for the industry; Sets up databases of scientific and technological resources for members  | Seeking agreements with similar associations and organizations; Investment partners; Research partners  | ●              | ● | ● |   |
| <b>Bunge Canada</b><br>Edmonton, AB<br>Employees: +1,000   | Processor of edible oil products  | Products available for Retail, Food Service and Industrial applications  | Seeking experienced trading partners abroad   | ●              |   |   |   |
| <b>Burcon Nutrascience Corporation</b><br>Vancouver, BC  | Developer of Puratein™, a canola protein for use in prepared foods, nutritional supplements and meal replacement products | Development of a fully modular pilot-scale facility that will serve as the prototype for future commercial and manufacturing plants; obtaining approvals for human consumption of Puratein™; expanding the company's understanding of the functional, physical and phytochemical properties of Puratein™; Pursuing strategic alliances with research bodies and agribusiness firms | Seeking strategic alliances with research bodies and agribusiness firms; joint venture research and product development for vertical markets such as food ingredients, nutritional supplements and personal care products, including cosmetic and body care | ●              |   |   |   |
| <b>Canadian Emu Oil Limited</b><br>Duncan, BC<br>Sales: > \$ 0.07 M<br>Employees: 3                  | Renderer and manufacturer of emu oil and emu oil products   | Renders, refines, manufactures emu oil; Produces a vast array of emu oil products under the Songlines label  | Seeking partners for the marketing of emu oil and emu oil products; Partners interested in using emu oil in their manufactured products   |                |   | ● |   |
| <b>Canadian Phytopharmaceuticals Corporation</b><br>Richmond, BC<br>Sales: \$ 1.2 M<br>Employees: 8  | Manufacturer of standardized phytopharmaceuticals; Contract manufacturing and analytical services                         | Manufactures standardized formulations of popular herbs; Provides analytical services to manufacturers and research institutions   | Partnerships for the distribution of standardized herbal products; Collaborations with companies seeking contract manufacturing or analytical services  |                |   | ● |   |

\*Product Areas: F = Food and Food Ingredients; N = Nutritional Supplements; M = Medicinal Products; R = Research Centres

<sup>1</sup> N/A: Not applicable

| Organization   | Nature of Business   | Current Activities  | Partnering Interests   | Product Areas* |   |   |   |
|--|--|---|--|----------------|---|---|---|
|  |  |   |  | F              | N | M | R |
| <b>Can-Oat Milling Products</b><br>Portage la Prairie, MB<br>Employees: 135                | Processor of raw oats into both intermediate and finished goods  | Supplier to industrial cereal and baked goods manufacturers; Exporting its product with focus on the U.S. market  | Interested in cooperative agreements in areas of the food production process and technology transfer   | ●              |   |   |   |
| <b>Canolio Inc.</b><br>Saint-Laurent, QC<br>Sales: \$500 001 - \$1 Million<br>Employees: 5 | Canolio specializes in the promotion and edification of eco-friendly product lines made from hemp oil and organic hemp seeds. Dedicated through R&D in providing innovative organic hemp by-products, Canolio offers avant-gardiste hemp products with highly controlled quality procedures. | Research aimed at enhancing, stabilizing and isolating specific healthful components and extracts of the hemp oil and development of new technologies and products transforming thus enhancing the hemp biomass into beneficial health care products. | Distribution agreements to develop present and future products; Seeking investment partners for the mass market targets in United States                               | .              | . |   |   |
| <b>Ceapro Inc.</b><br>Edmonton, AB<br>Sales: \$ 0.5 M<br>Employees: 8                      | Extraction of oat beta glucan and colloidal oat extracts for personal care, animal health and food, functional food, and nutraceutical industries  | Preparation of active extracts from cereal crops using patented fractionation technology. Development of food products based on high beta glucan bran and oat-based extracts for cosmetic and personal care markets                                   | Strategic licensing agreements with companies having established distribution or retail networks, or integrated manufacturing, distribution and retailing capabilities | .              |   | . |   |
| <b>Celex Laboratories</b><br>Surrey, BC<br>Sales: \$1-10 million<br>Employees: 10          | Specializes in natural herbal products and natural health products.  | Currently specializing in the manufacturing and marketing of natural health products.   | Celex welcomes potential investors, distributors and exporters interested in expanding Celex products into new markets.  | ●              | ● |   | ● |

\*Product Areas: F = Food and Food Ingredients; N = Nutritional Supplements; M = Medicinal Products; R = Research Centres

<sup>1</sup> N/A: Not applicable



| Organization  | Nature of Business   | Current Activities  | Partnering Interests   | Product Areas* |   |   |   |
|---|--|---|--|----------------|---|---|---|
|   |  |   |  | F              | N | M | R |
| <b>Centre for Aquaculture and Seafood Development</b><br>St. John's, NF   | Centre for Aquaculture and Seafood Development's (C-ASD) mission is to enhance the competitiveness of the aquaculture and seafood processing sectors, by working with industrial clients in areas of applied research, product and process development, technology transfer and advisory services, and support for education and training activities | The Center serves the industry in a variety of activities that include but are not limited to: Plant Sanitation, Process Design, Product Formulation, Thermal Processing, Fish Nutrition, Water Recirculation and Treatment, Developmental Shellfish Biology and Aquaculture Site Selection | Seeks opportunities to network with other academic institutions and the public and private sector to ensure that the best possible results are achieved for each initiative                            |                |   |   | . |
| <b>Chai-Na-Ta Corp.</b><br>Langley, BC<br>Sales: \$ 16.2M<br>Employees: 400   | Largest grower and distributor of North American ginseng products in the world   | Large scale cultivation of ginseng and echinacea; Manufacture ginseng-based products; Research on the therapeutic applications of ginseng   | Partnerships for the distribution of products in key markets; Collaborations with medical researchers on therapeutic effectiveness of North American ginseng   |                | ● | ● |   |
| <b>Coulee Pickings Ltd.</b><br>Regina, SK<br>Sales: < \$ 0.25M<br>Employees: 2-10   | Producer of raw materials for the nutraceutical and dermatological markets   | Research on the economic evaluation of growing herbs using hydroponics  | Interested in a co-operative development of new products   |                | ● | ● |   |
| <b>CV Technologies Inc.</b><br>Edmonton, AB<br>Sales: \$ 1.6 M<br>Employees: 40   | Developed and commercializes proprietary technology to identify, extract and biologically standardize natural mixtures that deliver healthy benefits   | Identifying, extracting and standardizing active mixtures to enable development of commercial products for international health supplement and pharmaceutical markets   | Pharmaceutical alliances for its cold-flu, memory, and attention deficit hyperactivity disorder products; Marketing partnerships for HerbTech Nutraceuticals in international markets and the internet |                |   |   | . |
| <b>Enviro-Test Laboratories</b><br><i>Natural Health Products Testing Division</i><br>Edmonton, Alberta<br>Sales: est. \$30 M<br>Employees: 250 | Provider of a wide range of quality natural health product testing services  | Providing 3 <sup>rd</sup> party analytical services to natural health product growers, manufacturers, and raw ingredient import/exporters; Production of high purity analytical reference standards available to research laboratories  | Partnerships in development of new & superior natural health products.   |                | ● | ● | ● |

\*Product Areas: F = Food and Food Ingredients; N = Nutritional Supplements; M = Medicinal Products; R = Research Centres

<sup>1</sup> N/A: Not applicable

| Organization   | Nature of Business   | Current Activities   | Partnering Interests   | Product Areas* |   |   |   |
|--|--|--|--|----------------|---|---|---|
|  |  |  |  | F              | N | M | R |
| <b>Food Research Centre, University of Moncton</b><br>Moncton, NB<br>Employees: 12         | Research on functional foods; Provides services to agri-food and marine sectors  | Research on: anti-carcinogenicity of food proteins, wild blueberry and cranberry extracts, marine bio-ingredients; Services include: product and process development, testing and analysis; Scale-up assistance  | Research collaborations and partnerships with research centres and industry for joint research projects  |                |   |   | ● |
| <b>Food-Nutrition Inc.</b><br>Toronto, ON<br>Sales: >\$100,000<br>Employees: 3             | Develops and markets a line of nutraceutical and functional food products for sale in North America.                   | Currently working with leading doctors to develop and expand their line of nutritional bars; Developing effective public relations and marketing programs  | Seeking investors for further development and growth; Knowledgeable broker and distributor alliances; High profile endorsers   | ●              |   |   |   |
| <b>Forbes Medi-Tech Inc.</b><br>Vancouver, BC<br>Employees: 57                             | Producer of functional food, pharmaceutical steroid and prescription pharmaceutical products                           | Product development of plant sterols derived from pulping and agricultural by-products   | Seeking strategic partnerships and business associations to deliver functional food and pharmaceutical products  |                | ● | ● |   |
| <b>Fortius Natural Nutrition</b><br>Calgary, AB<br>Employees: 22                           | Manufacturer of health nutrition products  | Fortius Natural Nutrition products can be found in health food stores, pharmacies, and retail outlets throughout Canada, the United States, and Europe. Fortius also formulates and manufactures products for the commercial livestock, equine and companion animal (pet) market | Seeking reputable distributors, both national and international, to help expand the Fortius product line and to develop a network of credible distributors                     |                | ● | ● |   |
| <b>Fytokem Products Inc.</b><br>Saskatoon, SK<br>Sales: > \$ .1 M<br>Employees: 7          | Develops, manufactures and markets plant extracts  | Identification and marketing of novel plant extracts and phytopharmaceuticals for nutraceuticals and functional food products, non-prescription therapeutics, cosmetics and personal care preparations; Markets pure phytopharmaceuticals as research standards                  | Strategic partnerships with companies looking for plant extracts and chemicals for screening programs; Collaborations for the marketing and sale of crude phytopharmaceuticals |                | • | • |   |
| <b>Gelda Scientific Inc.</b><br>Mississauga, ON<br>Sales: \$ 3-4 M<br>Employees: 25        | Manufactures and distributes food, health products and industrial enzymes; Provides services to the agri-food industry | Manufactures health food products including probiotics and herbal products; Provides analytical and consulting services; Contract manufacturing  | Partnerships for marketing and distribution  | •              | • | • |   |
| <b>Gourmet Nutrition F.B. Inc.</b><br>Ste. Julie, QC<br>Sales: < \$ 15 M<br>Employees: +25 | Manufacturer, processor, importer and distributor of supplement, botanical and herbal products                         | Custom manufacturing and private labeling services; Distributes health product lines both domestically and internationally   | Seeking overseas distributors  | ●              | ● | ● |   |

\*Product Areas: F = Food and Food Ingredients; N = Nutritional Supplements; M = Medicinal Products; R = Research Centres

<sup>1</sup> N/A: Not applicable

| Organization  | Nature of Business  | Current Activities  | Partnering Interests  | Product Areas* |   |   |   |
|---|---|---|---|----------------|---|---|---|
|   |   |   |   | F              | N | M | R |
| <b>Guelph Centre for Functional Foods</b><br>Guelph, ON<br>Employees: > 200                 | Analytical, diagnostic, regulatory and research services. Specialized analyses of active components in functional foods and agricultural products | Analytical laboratory services for the agri-food industry. Currently offer: profiles of 3 aglycones and 12 isomers of isoflavones from soybeans and soy foods, organosulphur compounds from garlic, ginsenosides from ginseng, and vitamin and nutritional labelling analysis | Strategic alliances and collaborative arrangements with industry, government and research organizations for research, development, and registration of nutraceutical and functional foods products, through the delivery of analytical services and contract research |                |   |   | . |
| <b>Guelph Food Technology Centre</b><br>Guelph, ON<br>Employees: 20                         | Not-For-Profit corporation that helps food entrepreneurs and companies commercialize new food products  | Services include: pilot-scale product, process and packaging development; Technical training and conferences; Networking  | Collaborations with companies, organizations and entrepreneurs in the food or biotechnology industries or related sectors for product development and testing, training   |                |   |   | . |
| <b>Hemp Oil Canada Inc.</b><br>Ste Agathe, MB<br>Employees: 5 full time, 1 part time        | Procurement, processing, marketing and distribution of hemp foods, nutritional supplements and body care products.                                | Production of food products, body care products. Research & development, private label packaging and custom processing.   |   | ●              | ● |   |   |
| <b>Human Nutraceutical Research Unit</b><br>Guelph, ON                                      | Researcher; specializing in the areas of nutraceuticals, functional foods and other natural health products                                       | Research on the efficacy of functional foods and nutraceuticals   | Seeking industrial, government and research partners  |                |   |   | ● |
| <b>Immunotec Research Ltd</b><br>Vaudreuil-Dorion, QC<br>Sales: \$50-100 M<br>Employees: 45 | Immunotec Research is a leading manufacturer and distributor of quality and innovative health-promoting products.                                 | Focus on research and product development, with a maintenance of information between their sales force and the medical community.   |   |                | ● | ● |   |
| <b>InfraReady Products Inc.</b><br>Saskatoon, SK<br>Employees: 14                           | Supplier and processor of a wide variety of conventional and organic plant derived products   | Processing and sale of products for the health-food industry; Toll processing of plant-derived products; Custom blending of grain products; Exportation of a variety of precooked legumes   | n/a   | ●              |   |   |   |

\*Product Areas: F = Food and Food Ingredients; N = Nutritional Supplements; M = Medicinal Products; R = Research Centres

<sup>1</sup> N/A: Not applicable

| Organization  | Nature of Business  | Current Activities   | Partnering Interests   | Product Areas* |   |   |   |
|---|---|--|--|----------------|---|---|---|
|   |   |  |  | F              | N | M | R |
| <b>Innovative Consulting Solutions Inc.</b><br>Nelson, BC<br>Sales: N/A<br>Employees: 5               | Quality Assurance (QA), Regulatory Affairs and Clinical Trials.   | Training an implementation assistance for Good Manufacturing Practice (GMP), Good Laboratory Practice (GLP), Good Clinical Practice (GCP), HACCP for foods, and various ISO standards. | Seeking strategic alliances with similar organizations. Open to financing toward our continued growth.   | ●              | ● | ● |   |
| <b>Institut Rosell-Lallemand Inc.</b><br>Montreal, QC<br>Sales: \$ 12 M<br>Employees: 80              | Produces microorganisms for dairy and food industries; Formulates probiotic supplements                           | Manufacture of products for food industry including dairy cultures, silage inoculants and starter cultures for meat products; Development of standard probiotic formulations           | Seeking agents and distributors; Partners for marketing and research contracts   | ●              | ● |   |   |
| <b>Jamieson Laboratories Ltd.</b><br>Windsor, ON<br>Sales: > \$ 100 M<br>Employees: 285               | Developer, manufacturer and distributor of natural source health products   | Manufactures, markets, distributes: vitamins/minerals, herbal remedies, phytonutrients, bio-food and skin care products  | Seeking distribution agreements with companies having significant marketing and distribution experience  |                | ● | ● |   |
| <b>KGK Synergize Inc.</b><br>London, ON<br>Sales: \$ 1.5 M<br>Employees: 17                           | Development of natural food components with anti-cancer and cholesterol-lowering activities                       | Research on anti-cancer and cholesterol-lowering components in citrus juices using experimental models cancer and hypercholesterolemia   | Collaborative arrangements with companies manufacturing dietary supplements, food manufacturers who can provide citrus fruit by-products and food producers interested in having products assessed for health benefits |                |   | ● |   |
| <b>Lallemand Inc.</b><br>Montreal, QC<br>Sales: \$ 250 M<br>Employees: 500                            | Manufacturer of bacteria and yeast extracts, and organic salt extracts for the food and pharmaceutical industries | Manufacture of baker's yeast and specialty strains for wine and distilled products; Research on microbial methods of reducing incidence of harmful bacteria in poultry processing      | Partnerships for research into applications for yeast, bacteria, oligosaccharides, and mineral enriched yeast  | ●              |   | ● |   |
| <b>Lassonde Industries Inc.</b><br>Rougement, QC<br>Sales: \$ > 200 M<br>Employees: 750               | Manufacturer of pure fruit juices and fruit drinks  | Lassonde markets products in Eastern Canada, the New England states, Europe, Asia and North Africa   | Seeking alliances with companies for joint development of innovative products and technologies, distribution of new products and technology transfer   | ●              |   |   |   |
| <b>Lifemax Natural Foods Distribution Inc.</b><br>Pickering, ON<br>Sales: < \$ 10 M<br>Employees: 10+ | Manufacture and distribution of functional foods and nutraceuticals   | Manufactures rice, potato and canola-based and other functional foods  | Distribution agreements with importers or distributors; Financing agreements with investors  | ●              | ● |   |   |

\*Product Areas: F = Food and Food Ingredients; N = Nutritional Supplements; M = Medicinal Products; R = Research Centres

<sup>1</sup> N/A: Not applicable

| Organization   | Nature of Business  | Current Activities   | Partnering Interests  | Product Areas* |   |   |   |
|--|---|--|---|----------------|---|---|---|
|  |   |  |   | F              | N | M | R |
| <b>Mekiwin Corporation</b><br>Gladstone, MB<br>Sales: \$ 0.25 M<br>Employees: 8                          | Producer of herbal supplements;<br>Specializes in production and processing systems               | Assists Manitoba producers of natural health products develop production and processing systems  | Seeking collaboration arrangements with companies possessing the capabilities to maintain and grow specialized crops  |                | ● | ● |   |
| <b>National Research Council (NRC) Institute for Marine Biosciences</b><br>Halifax, NS<br>Employees:> 60 | Research targeting health care, pharmaceuticals, natural resources and environment                | Two key areas: Aquaculture research focusing on minimizing disease in species, improving nutrition and survival, seafood safety and diversifying the industry. Genomics program develops platform technology in DNA sequencing, protein analysis, and bioinformatics | Seeking investors and research collaborators to develop new marine-based bio-products; Clients interested in large-scale DNA sequencing and analysis services |                |   |   | • |
| <b>Natural Factors Nutritional Products Ltd.</b><br>Coquitlam, BC<br>Sales: N/A<br>Employees: 600        | Manufacturer of herbal remedies, vitamins and mineral products, and other nutritional supplements | Natural Factors' products include: vitamins, multi-vitamins & minerals, mineral products, enzyme products, acidophilus products, specialty supplements, herbal products and specialty products for men, women and children   | n/a   |                | ● | ● |   |
| <b>Natural Health Products Technology Cluster</b><br>Guelph, ON  | Provides services to the natural health products industry   | Identification and development of high priority services to the industry   | Seeking interested members in the southern Ontario area; Possible collaborative arrangements are joint purchasing agreements and common marketing campaigns   |                |   |   | ● |
| <b>Naturally Nova Scotia Health Products Ltd.</b><br>Dartmouth, NS<br>Sales: > \$ 0.5 M<br>Employees: 12 | Manufactures and distributes herbal products  | Manufactures herbal tinctures and teas from fresh organically grown herbs; Research on natural antibiotics and other natural therapeutics  | Supply agreements with companies seeking raw materials; Distribution agreements for North American and European markets                                       |                |   |   | • |
| <b>Nature's Formula Health Products Ltd.</b><br>Kelowna, BC<br>Sales: \$ 2 M<br>Employees: 20            | Manufactures herbal medicinal products  | Produces herbal preparations in various forms including tinctures, extracts, tonics and ointments; Exclusive distribution to naturopathic doctors  | Partnerships for the distribution of herbal products; Contract manufacturing  |                |   | ● |   |

\*Product Areas: F = Food and Food Ingredients; N = Nutritional Supplements; M = Medicinal Products; R = Research Centres

<sup>1</sup> N/A: Not applicable

| Organization   | Nature of Business   | Current Activities   | Partnering Interests   | Product Areas* |   |   |   |
|--|--|--|--|----------------|---|---|---|
|  |  |  |  | F              | N | M | R |
| <b>New Era Nutrition</b><br>Edmonton, AB<br>Sales: \$1 - 10 million<br>Employees: 8  | Research, development, production and commercialization of functional food products for health promotion, performance enhancement, and disease prevention. | New Era provides services to industry leaders which includes: product development, contract research and clinical studies  | Investment partners for international growth opportunities   | ●              | ● |   |   |
| <b>Newfoundland Aqua Products Inc.</b><br>Ramea, NF<br>Sales: < \$ 1.0 M<br>Employees: 11  | Producer and processor of kelp products  | Research and development of new products and processes; Harvesting and processing seaweed/kelp   | Interested in collaborations in the United States and Europe to distribute its products internationally  |                | ● |   |   |
| <b>Nutraceuticals &amp; Functional Foods Research Institute</b><br>Sainte-Foy, QC<br>Employees: 60 professors-researchers, 200 research assistants | Research and development in health, nutrition and agri-food.   | Research in: New bioactive molecules; Producing foods with new health benefits; Efficient extraction and purification methods; New methods of preserving and/or improving metabolic activity of bioactive molecules in raw and processed foods | Research partnerships  |                |   |   | ● |
| <b>Nutraceuticals and Functional Foods Institute (INAF)</b><br>Sainte-Foy, QC<br>Sales: N/A<br>Employees: 60                                       | Research and development in health, nutrition and agri-food.   | Research in: New bioactive molecules; Producing foods with new health benefits; Efficient extraction and purification methods; New methods of preserving and/or improving metabolic activity of bioactive molecules in raw and processed foods | Research partnerships  |                |   |   | ● |
| <b>Nutravite Pharmaceuticals Inc</b><br>Kelowna, BC<br>Employees: 43   | Specializes in the production, distribution and marketing of herbal and nutritional supplements  | Involved in the following Therapeutic areas: Nutraceuticals, Supplements, Vitamins, Cosmetics, Analgesics, Arthritis and Immunology  | International marketing and distribution agreements  |                | ● |   |   |
| <b>Nutri-Chem Pharmacy</b><br>Ottawa, ON<br>Sales: \$5,000,000<br>Employees: 30  | Capabilities encompass pharmaceuticals, nutritional and herbal supplements, homeopathy and lifestyle counseling  | Corporate Wellness Programs; Customized supplements; Nutritional support for cancer patients; Osteoporosis prevention programs; Heart Health promotion; Nutritional analyses using GC-MS, HPLC   | Seeking partnerships for trace mineral assessment related to health and disease; Oxidative chemistry analyses; Investigation of the role of fatty acids in mental health; Nutraceutical and herbal standardization |                |   | ● |   |

\*Product Areas: F = Food and Food Ingredients; N = Nutritional Supplements; M = Medicinal Products; R = Research Centres

<sup>1</sup> N/A: Not applicable

| Organization   | Nature of Business   | Current Activities   | Partnering Interests   | Product Areas* |   |   |   |
|--|--|--|--|----------------|---|---|---|
|  |  |  |  | F              | N | M | R |
| <b>Nutri-Loc Corporation</b><br>Vancouver, BC<br>Sales : \$500 001 - \$1 M<br>Employees : 6    | Supplier of raw herb and manufacturer of standardized liquid, soft and powdered extracts for the nutraceuticals and food industries. | Marketing in the U.S. of bulk standardized liquid and powdered extracts and working on building solid links with western Canadian herb farmers.                      | Distribution, manufacturing and joint product agreements.  | ●              | ● |   |   |
| <b>Ocean Nutrition Canada Ltd.</b><br>Bedford, NS<br>Sales: > \$ 10 M<br>Employees: 150        | Manufactures clinically proven marine-based health and nutritional supplements   | Manufacture of essential fatty acid supplements from fish and marine–animal oils; Development of micro – encapsulation technologies; Soft gel encapsulation services | Collaborations for distribution of marine-based nutritional products; Soft gel encapsulation services  | ●              | ● |   |   |
| <b>Ocean Produce International</b><br>Shelbourne, NS<br>Sales: \$ 2.0 – 5.0 M<br>Employees: 20 | Developer of green house technologies for marine plant production;<br>Producer of unique chemicals                                   | Cultivation, processing, research and development of algae and creation of functional foods, nutraceuticals, cosmaceuticals, pharmaceuticals and fine chemicals      | Joint ventures with companies to develop products or pursue contract opportunities   | ●              |   |   |   |
| <b>Omega Biotech Corp.</b><br>Victoria, BC<br>Sales: \$1-10 M<br>Employees: 12                 | Antioxidant manufacturer focusing on grape seed extract in bulk and retail capsule form  | Manufacturers high quality, potent antioxidant extract from grape seeds. The company has a retail line of antioxidant capsules.                                      | The company is seeking partnerships with laboratory and research organizations, distributors of nutraceuticals, functional foods, dietary supplements and cosmaceuticals as well as partners for recycling of waste grape seed extract and pomace and marc from wineries | ●              | ● |   |   |
| <b>Omega Nutrition Canada Inc.</b><br>Vancouver, BC<br>Sales: > \$ 2 M<br>Employees: 26        | Mirco-oil manufacturer specializing in small batch processing of unrefined organic oils.   | Development and marketing of several essential fatty acid (EFA) products; Developed unique processing and packaging technology for EFA products                      | Agents and distributors of EFA products in international markets   |                | . |   |   |
| <b>Parrheim Foods</b><br>Saskatoon, SK<br>Sales: \$ 5–10 M<br>Employees: 35                    | Produce dry and wet-milled functional food products from grains, legumes and cereals   | Production and marketing of starch, protein, fibre, flour and specialized extracts; Development of novel functional foods and ingredients from legumes and cereals   | Collaborations for marketing and technology development  | .              | . |   |   |
| <b>PEI Food Technology Centre</b><br>Charlottetown, PEI  | Provides scientific and technical expertise to the agriculture and fisheries industries  | Product Development; Analytical Services; Nutritional Labelling; Food safety; Trouble Shooting; Sensory Analysis; Research and Development; and Strategic Partnering | Seeking partnering interests with agri-food and seafood producers and processors ; Investors; and Manufacturers  |                |   |   | ● |

\*Product Areas: F = Food and Food Ingredients; N = Nutritional Supplements; M = Medicinal Products; R = Research Centres

<sup>1</sup> N/A: Not applicable

| Organization  | Nature of Business   | Current Activities  | Partnering Interests   | Product Areas* |   |   |   |
|---|--|---|--|----------------|---|---|---|
|   |  |   |  | F              | N | M | R |
| <b>Pharmascience Inc.</b><br>Montreal, QC<br>Sales: > \$ 170 M<br>Employees: 486  | Manufacturer of ethical, generic and over-the-counter health care products   | Manufactures brand-name and generic pharmaceuticals, nutraceuticals, over-the-counter preparations and compliance devices   | Alliances for the joint development of innovative products, distribution of ready-made products and technology transfer  |                |   | ● |   |
| <b>Phytochemical Metabolism Group, McGill University</b><br>Ste. Anne de Bellevue, QC<br>Employees: 15                  | Research on phytosterols and other dietary plant compounds   | Studies on phytochemicals and their relation to disease; Chemical analyses, stability profiles of phytosterol mixtures from various sources                                       | Research collaborations and technology transfer partnerships with organizations interested in studying metabolic actions of plant sterols  |                |   |   | ● |
| <b>PhytoGen Life Sciences Inc.</b><br>Delta, BC<br>Sales: \$ 0.5 M<br>Employees: 25                                     | Manufacturer and supplier of active pharmaceutical ingredients   | Extraction, isolation, purification and production of active pharmaceutical ingredients derived from plants and other natural sources   | Seeking contract manufacturing clients   |                |   | ● |   |
| <b>POS Pilot Plant Corporation</b><br>Saskatoon, SK<br>Sales: \$1-50 000<br>Employees: 90                               | Contract R&D facility specializing in bioprocessing solutions  | Development of value-added bioprocessing technologies for commodities such as cereal grains and oilseeds; Product development, pilot testing, analytical and information services | Collaborative agreements with industry, universities or government for joint product or technology development in Canada and abroad  |                |   |   | • |
| <b>Puresource Natural Products</b><br>Guelph, ON<br>Sales: \$ 20 M<br>Employees: 80                                     | Distributor and manufacturer of natural products   | Custom manufacturing services; Specializing in herbal and nutritional supplements and meal replacement products   | Seeking distribution arrangements with Canadian manufacturers of natural products  | ●              | ● | ● |   |
| <b>Richardson Centre for Functional Foods &amp; Nutraceuticals</b><br>Winnipeg, MB<br>Sales: \$1-50 000<br>Employees: 5 | Richardson Centre for Functional Foods & Nutraceuticals provides a facility for researchers and industry to develop functional foods and nutraceuticals based on scientific safety and efficacy. | Conducting research in enhancement, identification, extraction, safety & efficacy assessment and consumer acceptability   | Collaborations and strategic partnerships with industry and research centres in all areas of functional foods and nutraceuticals including innovative technologies for the development of functional foods and nutraceuticals. |                |   |   | ● |

\*Product Areas: F = Food and Food Ingredients; N = Nutritional Supplements; M = Medicinal Products; R = Research Centres

<sup>1</sup> N/A: Not applicable



| Organization  | Nature of Business  | Current Activities  | Partnering Interests   | Product Areas* |   |   |   |
|---|---|---|--|----------------|---|---|---|
|   |   |   |  | F              | N | M | R |
| <b>Rodrigues Winery</b><br>Whitbourne, NF<br>Sales: \$ 600,000<br>Employees: 7              | Producer of Kosher fruit wines and juices   | Wines are currently being sold in Alberta, Ontario, Nova Scotia, New Brunswick, Newfoundland, Japan and New York city metropolitan area; Started their distillery and will be producing liquors, vodkas and brandies from several fruits; Joined Natural Newfoundland Nutraceuticals and is currently setting up a plant for the production of Nutraceutical products | Seeking alliances with groups having similar goals i.e. organic, Kosher, environmentally conscious and ethical goals | ●              | • |   |   |
| <b>Sangster's Health Food Stores</b><br>Saskatoon, SK<br>Employees: 153                     | Franchiser of retail outlets offering private label vitamins, minerals, herbs, and sport nutrition products             | Research and development for expansion of its private label line products; Producing "Natural Living" Magazine for Sangster's customers   | Seeking contract manufacturing of vitamin and herbal products; Franchising opportunities available                   |                | • | • |   |
| <b>Seabuckthorn International Inc.</b><br>Peachland, BC<br>Sales: \$ 0.25 M<br>Employees: 4 | Producer and processor of seabuckthorn products   | Research and development of Seabuckthorn; Development of a Canadian farmer grower contact system of commercial plantation supply  | Seeking alliances for the development of consumer products and the financing of current and planned projects         |                | ● | ● |   |
| <b>SemBioSys Genetics Inc.</b><br>Calgary, AB<br>Sales: < \$ 0.1 M<br>Employees: 30         | Manufacture of high-value recombinant proteins in seeds of common crops plants  | Core technologies: plant transformation, protein biochemistry; BioPeptides: human and animal pharmaceuticals, nutraceuticals; Enzymes for industrial and food applications; Seed meal enhancement   | Joint ventures with companies seeking alternative recombinant protein manufacturing                                  | ●              | ● | ● |   |
| <b>Sisu Enterprises Co. Inc.</b><br>Burnaby, BC<br>Sales: \$10 - 50 M<br>Employees: 100     | Manufactures and distributes natural source vitamins, minerals, botanicals, enzymes, sports nutrition and homeopathics. | SISU currently services health food, natural pharmacy, and professional accounts across Canada, the United States, Hong Kong, Europe, Japan, the Middle East, and several other countries.  | N/A  |                | ● | ● |   |

\*Product Areas: F = Food and Food Ingredients; N = Nutritional Supplements; M = Medicinal Products; R = Research Centres

<sup>1</sup> N/A: Not applicable

| Organization   | Nature of Business  | Current Activities   | Partnering Interests   | Product Areas* |   |   |   |
|--|---|--|--|----------------|---|---|---|
|  |   |  |  | F              | N | M | R |
| <b>St. Boniface's National Centre for Agri-Food Research in Medicine</b><br>Winnipeg, MB<br>Employees: 190 | Medical research facility focussing on the study of health related benefits of natural health products (nutraceuticals and functional foods). | Current research activities of the Centre include Non-human and clinical studies investigating the effects of flax on the development of atherosclerosis; comparative study of the effects of fish oil, flaxseed oil and hempseed oil supplementation; and development of a website designed to provide public and medical community with reliable and accurate information about the health related benefits of key nutraceutical/functional foods. | Seeking mutually beneficial research interactions not restricted to partnering only with academia but with developing companies and established industrial partners as well. |                |   |   | ● |
| <b>Sube-PreoBiotics Inc.</b><br>Montréal, QC<br>Sales : \$250, 001-\$500,000<br>Employees : 8              | Canadian biotechnology company dedicated to chicory-based functional foods and nutraceutical products.  | Evaluating the potential of Canadian chicory growth and developing Public Relations and Marketing programs.  |  |                | ● |   |   |
| <b>Swiss Herbal Remedies Ltd.</b><br>Richmond Hill, ON<br>Sales: > \$ 35 M<br>Employees: 120               | Manufactures, markets and distributes natural source vitamins, minerals, herbal supplements and cosmetics                                     | Produces a vast array of natural source health products; Public and trade seminars   | Contract manufacturing agreements for private label nutritional and herbal products  |                | . | . |   |
| <b>Taiga BioActives Inc.</b><br>Saskatoon, SK<br>Employees: 3  | Developer of unique bioactive products for the Nutraceutical, Pharmaceutical and Cosmetic industries  | Currently researching, developing and marketing natural bioactive products   | Seeking new investment capital for development and marketing of its products; Seeking distributors and manufacturers of cold sore remedies and pet products.                 |                | . | . |   |
| <b>The Holista Health Corporation</b><br>Coquitlam, BC<br>Employees: 36                                    | Manufacturer of health and nutritional supplements  | Offers a range of herbal supplement and specialty vitamin products; Research and development of new products and techniques  | N/A  |                | ● |   |   |
| <b>University of Alberta</b><br>Edmonton, AB<br>Employees: 298   | Research program focused on the entire food chain and its effect on human health  | Research in: biochemistry/biotechnology, bioengineering, food/food products, genetics/breeding, horticulture, nutrition, animal physiology, plant protection   | Collaborations in the areas of nutrition and metabolism, socio-economics, and innovative technologies for the development of functional foods and nutraceuticals             |                |   |   | ● |

\*Product Areas: F = Food and Food Ingredients; N = Nutritional Supplements; M = Medicinal Products; R = Research Centres

<sup>1</sup> N/A: Not applicable

| Organization   | Nature of Business   | Current Activities   | Partnering Interests   | Product Areas* |   |   |   |
|--|--|--|--|----------------|---|---|---|
|  |  |  |  | F              | N | M | R |
| <b>University of Toronto</b><br>Toronto, ON<br>Employees: 127                      | Teaching and research in the area of human nutrition                                       | Research on diet and the prevention, development and treatment of major disease states; Studies in appetite control, hunger and food security issues | Seeking research partnerships with the private sector to test, develop and promote functional foods and nutraceuticals |                |   |   | . |
| <b>Vaccinium Technologies Inc.</b><br>Fredericton, NB<br>Employees: 2              | Research and development of fruit production and processing for nutraceutical applications | Research on: extracting, enhancing, characterising and stabilizing the healthful components of wild blueberries and related fruit                    | Seeking collaborations in food, beverage and nutraceutical applications of fruit-based flavonoids                      | ●              | ● |   |   |
| <b>Vita Health Products</b><br>Winnipeg, MB<br>Sales: > \$ 130 M<br>Employees: 645 | Manufacturer of nutritional and herbal supplements   | Manufacture and package private label and consumer brand vitamins, minerals and herbal and nutritional supplements                                   | Joint product development with value-added, research-based raw material suppliers                                      |                | ● | ● |   |

Company profiles website: [http://www2.agr.ca/nutraceuticals/home\\_e.cfm](http://www2.agr.ca/nutraceuticals/home_e.cfm)

\*Product Areas: F = Food and Food Ingredients; N = Nutritional Supplements; M = Medicinal Products; R = Research Centres

<sup>1</sup> N/A: Not applicable

# **Food and Food Ingredients**

**Alphabetical listing of companies dealing with food and  
food ingredient products**

## FOOD AND FOOD INGREDIENTS

Canada is a leading producer and exporter of agricultural products including grains, dairy and poultry products. Canadian farmers also have special expertise in the improvement of the agronomic qualities of various crops. Along with enhancing the nutritive value and functional properties of common crops, there has been a trend towards value-added processing and the extraction of the most nutritionally valuable constituents

Grains such as wheat, oats, and barley are mainstays of the North American diet. These products are high sources of dietary fiber, carbohydrates and vitamins. Canadian companies have developed specialized fractionation technologies for the processing of raw materials such as legumes, oats and other cereals into starch, protein and fibre, which are used as food additives. In addition, more acreage is being devoted to specialty crops to meet the demands of manufacturers seeking specific raw materials for functional food products.

Milk and eggs are rich sources of protein and essential fatty acids. Canadian companies have developed technologies for augmenting and enhancing the overall nutritional value of these products. Companies produce lactose-free dairy products and eggs with added gamma linolenic acid (GLA) and Omega-3 essential fatty acids. Transgenic and recombinant protein technologies have enabled the production of value-added milk and dairy products.

Canadian companies have developed culturing technologies in order to cultivate unique sea vegetables. Sea Parsley, a natural plant mutation, is a source of OMEGA-3-EPA, a unique compound with potential nutritional importance.

Yeast and lactic bacteria have been used for centuries in baking and in the production of cheese, beer and wine. While these microorganisms are still used for similar purposes today, modern microbiological techniques have enabled the development and production of novel, beneficial bacterial strains that yield end products with desirable functional characteristics. Canadian companies produce microorganisms for the dairy, meat, and brewing industries. Microorganisms also occur naturally in the human digestive system. Companies now manufacture probiotic supplements specially formulated to help people maintain normal levels of healthful intestinal bacteria.

Selected organizations that use advanced technologies to produce food or food ingredients include:

- Acadian Seaplants
- Advitech Solutions Inc.
- Agricore United
- API Grain Processors
- Bio-K+ International Inc.
- Bioriginal Food & Science Corp.
- British Columbia Functional Food & Nutraceutical Network
- Bunge Canada
- Burcon Nutrascience Corporation
- Can-Oat Milling Products
- Canolio Inc.
- Ceapro Inc.
- Celex Laboratories Inc.
- Food-Nutrition Inc.
- Forbes Medi-Tech Inc.
- Gelda Scientific Ltd.
- Gourmet Nutrition F.B. Inc.
- Hemp Oil Canada Inc.
- InfraReady Products Inc.
- Innovative Consulting Solutions Inc.
- Institut Rosell-Lallemand Inc.
- Lallemand Inc.
- Lassonde Industries Inc.
- Lifemax Natural Foods Distribution Inc.
- New Era Nutrition/Advanced Nutri-Tech Systems Inc.
- Nutri-Loc Corporation

- Ocean Nutrition Canada Ltd.
- Ocean Produce International
- Omega Biotech Corp.
- Parrheim Foods
- Puresource Natural Products
- Rodrigues Winery
- SemBioSys Genetics Inc.
- Vaccinium Technologies Inc.

## **ACADIAN SEAPLANTS LIMITED**

30 Brown Avenue  
Dartmouth, Nova Scotia  
Canada, B3B 1X8  
Telephone: (902) 468-2840  
Facsimile: (902) 468-3474  
E-mail: [info@acadian.ca](mailto:info@acadian.ca)  
Website: [www.acadianseaplants.com](http://www.acadianseaplants.com)

Scott Bronson  
Sales Manager, Food Ingredients Division

### **NATURE OF ORGANIZATION**

Acadian Seaplants Limited is the world's largest independent manufacturer of value-added marine plant-based products for global health & beauty, nutraceuticals, functional foods, food ingredients and agricultural markets.

### **MAJOR ACHIEVEMENTS**

- Canada Export Award
- Canadian Innovation Award for Technology
- Nova Scotia Export Award
- Nova Scotia Environmental Award for Industry
- One of the '50 Best Managed Companies' in Canada

### **ORGANIZATIONAL PROFILE**

Sales Volume: n/a  
R&D Expenditure: n/a  
Employees: 310

Facilities: 5 processing plants and Corporate Office

Ownership: Private

Trade: Exporting

Percentage of sales exported: 75% or more

Export destinations: Worldwide - global

Key Alliances:

- International, national and local universities, National Research Council's Institute for Marine Biosciences and others.

### **ORGANIZATIONAL BACKGROUND**

Acadian Seaplants Limited is a fully integrated company responsible for every stage of operation from the sustainable harvesting of wild marine plants to the processing, marketing and sales of value-added products exported to world markets.

### **CURRENT ACTIVITIES**

Acadian Seaplants Limited exports to over 70 countries around the world.

### **DESIRED INVESTMENT**

### **PARTNERSHIPS**

Acadian Seaplants Limited is interested in exploring R&D opportunities; specifically new product development and research projects involving marine plants.

## **ADVANCED NUTRI-TECH SYSTEMS INC. / NEW ERA NUTRITION INC.**

New Era Place  
10519-99 Avenue  
Edmonton, AB  
Canada T5K 0E7

Telephone: (780) 423-4551  
Facsimile: (780) 423-1786  
e-mail: [newera@nutritech.com](mailto:newera@nutritech.com)  
Website: <http://www.nutritech.com>

Mr. Saul Katz  
President and CEO

### **NATURE OF BUSINESS**

Advanced Nutri-Tech Systems Inc. ("Nutri-Tech") is a biotechnology company on the forefront of research and development of function-specific and nutraceutically enhanced food products, as a superior alternative to capsule delivery. The company is helping clients bring the benefits of nutraceuticals to the mass consumer market through familiar food products such as nutrition bars and cereals.

Nutri-Tech scientifically formulates products for health promotion, disease prevention and performance enhancement. The company provides custom research and development, facilitates clinical studies and manufacturing for industry leaders.

Nutri-Tech's leading edge proprietary technology has been developed in collaboration with leading Canadian science and health institutions. The company is comprised of a multidisciplinary team of scientists with expertise in food and nutritional sciences, phytochemicals and food processing technology.

Nutrition, energy and health needs and taste preferences change throughout the life cycle. Nutri-Tech products are scientifically formulated to specifically address these evolving requirements on the basis of age, gender and need. Formulations are adjusted to the preferences of different cultures or countries.

Nutri-Tech specializes in the development and production of functional and nutraceutical food bars that are delicious, convenient and shelf-stable. Nutri-Tech scientists synergistically combine food and phytochemical compounds to generate the desired attributes. Bars have been developed for specialty needs including diabetic, weight loss, antioxidant protection, physical performance, immune boosting, cholesterol lowering, estrogenic, prebiotic and for heart health, skeletal health, prostate health, eye health, mental acuity and maternity needs.

Nutri-Tech's approach to the development of food-form dietary supplements achieves structure/function claims, and overcomes regulatory concerns and import barriers encountered by drug-form nutraceuticals. Products are developed in accordance with the Dietary Supplement Health Education Act of the United States of America.

### **MAJOR ACHIEVEMENTS**

- Developed two proprietary technologies for food-based delivery of nutraceuticals, as a superior alternative to the capsule format: Functional Food Bar Technology (FBBT™) and Nutraceutical Food Bar Technology (NFBT™)
- Pioneered the development of nutritionally designed and nutraceutically enhanced food products on an age, gender and need basis
- Pioneered the use of botanicals for micronutrient and phytochemical supplementation
- Conducted clinical study work to support product development and marketing initiatives
- Developed minimal processing technology to maximize nutrient and phytochemical content
- Entered into 6 research and development collaborations with major food and drug companies
- Completed 4 license agreements with major food companies and multilevel organizations

### **COMPANY PROFILE**

Sales Volume: \$ 2 million (2000, est.)

R&D Expenditure: \$ 750,000 (2000, est.)

Employees: 8



# ***FUNCTIONAL FOOD & NUTRACEUTICAL TECHNOLOGIES IN CANADA***

---

Facilities: Laboratory (80%) and office (20%)

Ownership: Private

- Imperial Sensus
- Mannatech Inc.
- Prairie Sun Grains (Agricore)
- QualiTech Foods (Apotex)
- Rexall Sundown

## **KEY ALLIANCES**

Nutri-Tech has been developing its technology in conjunction with leading science and health institutions in Canada including ongoing R&D relationships with:

- National Research Council of Canada
- University of Alberta, Faculties of Medicine & Nutrition Sciences
- University of Toronto, Nutritional Science
- Food Development and Processing Centre; Alberta Agriculture
- AgWest Biotech
- Alberta Food Processors Association
- Food and Beverage Canada
- Canadian Western Diversification

Nutri-Tech has developed strategic relationships with specialized facilities for production needs.

## **COMPANY BACKGROUND**

Nutri-Tech pioneered the development of functional and nutraceutically enhanced food bars. Nutri-Tech was established in 1992 to research and develop food products to promote health, enhance performance and prevent disease by applying new scientific knowledge. In June 1993 Nutri-Tech entered into a research and development agreement with the University of Alberta Hospitals to develop an all-natural meal replacement bar. Since 1994 the National Research Council of Canada has supported the advancement of the company's technology through numerous projects.

The company offers its client services through its sister company *New Era Nutrition Inc.*

## **CURRENT ACTIVITIES**

Nutri-Tech is currently developing new product lines for industry leaders. Its clients are from pharmaceutical, food, nutritional supplement, diet, sports and nutraceutical suppliers and include:

- Balance Bar Company (Kraft Foods)

Nutri-Tech provides turnkey services from functional bar development through production:

- Concept and prototype development
- Clinical and analytical testing
- Production scale-up and quality assurance
- Regulatory, health claims and structure function claims
- Marketing support

## **COLLABORATIVE ARRANGEMENTS SOUGHT**

Nutri-Tech is completing a breakthrough line of nutraceutical food bars and seeks strategic partners to launch the line. The company seeks investment to establish a state of the art nutraceutical production facility with GMP standards suitable for medical foods.

Nutri-Tech is at the forefront of the functional food and nutraceutical revolution. The company is positioned for dramatic growth and seeks partners to capitalize on this global opportunity.

## **ADVITECH SOLUTIONS INC.**

650, Boul. Père Lelièvre  
Bureau 170, Vanier (Québec)  
Canada G1M 3T2

Telephone: (418) 686-7498  
Facsimile: (418) 686-2446  
E-mail: info@advitech.com  
Website: <http://www.advitech.com>

Mr. Renaud Beauchesne  
Chief Executive Officer

### **NATURE OF BUSINESS**

Advitech is the knowledge source for bio-active peptides to be used in the functional food and/or nutraceutical market. The technological platform of Advitech is essentially focused on the enzymatic hydrolysis and fractionation process of proteins to activate different functionalities. Advitech's platform will deliver bio-active ingredients in the different domains of application: immuno-modulation, obesity and related diseases such as diabetes type II and anti-inflammatory.

Finally, Advitech provides also product packaging and encapsulation services that meet the (GMP and ISO 9001) standards for the health and pharmaceutical industry.

### **MAJOR ACHIEVEMENTS**

- Development and marketing of a milk protein peptide with an anxiolytic effect
- Development of an ACE inhibitor peptide for the prevention of hypertension
- Development of commercial enzymatic hydrolysis process for whey proteins
- 

- Development and marketing of high protein content products to serve health care practitioners specializing in the treatment of obesity
- Development and introduction of a micro-nutrition concept to serve the needs of nutritionists and other specialized practitioners

### **COMPANY PROFILE**

|                               |   |
|-------------------------------|---|
| Sales Volume:                 | \$ 8 M  |
| R&D Expenditure:              | \$ 1 M  |
| Employees:                    | 41  |
| Facilities:                   | 3000 sq.ft. laboratory<br>8000 sq. ft. manufacturing facilities<br>4000 sq. ft. warehouse |
| Trade:                        | Exporting   |
| Export destinations:          | USA, France, Belgium, Lebanon, Hong Kong  |
| Total exports:                | \$1 - \$10 Million  |
| Percentage of sales exported: | 50 - 74.9%  |
| Ownership:                    | Private   |

#### Key Alliances:

- Biotics Research
- Immunotec Research
- OligoDiffusion

### **COMPANY BACKGROUND**

Advitech was founded in 1996. The company markets its products mainly in Canada, the USA, and Europe. Markets for its functional food products are expanding through specialized networks of nutritionists and other health care practitioners, and also through commercial partnerships with ingredient manufacturers.

Research and development is centralized in Québec and production occurs at three locations: Québec, Montréal and Minnesota.

### **CURRENT ACTIVITIES**

The company is involved in the research and development of biologically active peptides from whey proteins, using a combination of enzymatic hydrolysis and separation processes. Advitech has developed expertise in analytical chromatography of proteins and peptide components and in the encapsulation of food ingredients and pharmaceutical products.

Advitech has developed different lines of products serving different markets all related to the functional food and nutraceutical domains.

### **DESIRED INVESTMENT PARTNERSHIPS**

Through its strategic alliances, Advitech Solutions teams up with leading technological and commercial partners capable of rising to the challenge of researching, manufacturing and marketing the ingredients and products it develops.

Advitech is interested in establishing partnerships in the following areas:

- Research: Projects involving the enzymatic hydrolysis, fractionation and purification of proteins (vegetal and animal).

- Product Development: Products using Advitech's ingredients and having functional food and nutraceutical applications.
- Manufacturing: Conditioning and encapsulation of ingredients for nutritional and pharmaceutical applications.

**UNITED GRAIN GROWERS LTD****OPERATING AS****AGRICORE UNITED™**

Head Office:

Box 6600, 201 Portage Avenue

Winnipeg, Manitoba

Canada R3C 3A7

Telephone: (204) 944-5411

Facsimile: (204) 944-5454

E-mail: jrdean@agricoreunited.com

Website: <http://www.agricoreunited.com>

John Dean

Manager Market & Technical Development

**NATURE OF BUSINESS**

Agricore United, the largest Agri-Business in Canada, handles and markets cereal grains, oilseeds and special crops for both the domestic and international markets. Agricore United has a modern system of efficient grain handling facilities and provides the latest crop protection and crop nutrition technologies. The entire high throughput elevator handling system is ISO certified and HACCP compliant.

Through its wholly owned seed business, Proven™ Seed, the company seeks the best crop genetics from around the world, and has strategic partnerships with leading plant breeders. The company also runs a world class Linum (flax) breeding program.

The Special Crops Business Unit contracts and processes special crops for the domestic, North American and international markets, including dry edible beans, food and feed peas, chickpeas, lentils, mustardseed, safflower, canary seed, buckwheat.

A growing demand for Identity Preserved crops has seen the company initiate programs in all the major crop types in response to the specific demands of end-users.

A major commitment to livestock feed production has resulted in the livestock division's rapid growth in Alberta, Manitoba and British Columbia.

**MAJOR ACHIEVEMENTS**

- Canada's leading retailer of crop inputs (certified seed, nutrition, protection)
- Prairie-wide network of grain and crop production services facilities
- Leading seed business in western Canada supplying superior quality and service under the Proven™ seed brand
- Entire high throughput elevator grain handling, and crop processing system, ISO/HACCP certified providing product traceability
- Highly developed Identity Preserved programs delivering specific varieties to end-users
- World leading Linum (flax) breeding program – introduced the world's first low linolenic flax (Linola™) in cooperation with CSIRO of Australia
- Strategic partnerships with end-users to develop and supply crop varieties with enhanced value for food or industrial applications
- Development and introduction of field record keeping and crop planning system to support good management practices on the farm, and provide product traceability.

# FUNCTIONAL FOOD & NUTRACEUTICAL TECHNOLOGIES IN CANADA

## COMPANY PROFILE

|                               |  |
|-------------------------------|--|
| Sales Volume:                 | \$ 2.8 billion (Agricore United)<br>plus \$1 billion (CWB billings)  |
| R&D Expenditure:              | >\$ 3.0 million  |
| Employees:                    | 2,750  |
| Facilities:                   | <ul style="list-style-type: none"><li>• Head office Winnipeg</li><li>• Grain Terminals at port in Vancouver and Prince Rupert, BC and Thunder Bay, ON</li><li>• Country elevator system, special crop cleaning plants, crop production centres across Western Canada</li><li>• Crop Research facilities prairie wide</li></ul> |
| Ownership:                    | Publicly traded (TSX:"AU")   |
| Trade:                        | Domestic & Export  |
| Export destinations:          | <ul style="list-style-type: none"><li>• North America</li><li>• South America</li><li>• Asia</li><li>• Europe</li><li>• North Africa</li></ul>   |
| Total exports:                | >\$1 billion   |
| Percentage of sales exported: | 39%  |

### Key Alliances/End-Users:

- CSIRO of Australia
- CDC, University of Saskatchewan
- Canadian Wheat Board
- Warburtons
- Unilever
- General Mills
- Anheuser-Busch
- International Malt Company Canada
- Canadian International Grains Institute
- Canadian Malting Barley Technical Centre

## COMPANY BACKGROUND

Agricore United is a publicly traded (TSX: "AU") agri-business operating in Western Canada. It provides fully integrated grain and special crops marketing and handling services through a prairie-wide network of elevators and specialized processing plants. Agricore United also handles a full range of crop inputs, supplies and services through retail outlets across Western Canada.

Created in 2001 by the merger of Agricore Cooperative and United Grain Growers Ltd, Agricore United™ is the leading supplier of crop nutrition and crop protection products in Canada, and is Canada's largest grain handling and marketing business. The principal shareholder is Archer Daniels Midland Co. of Decatur, Illinois.

Agricore United employs about 2,750 people and offers personalized service to farmers across Western Canada, and to end-users around the world.

Agricore United's R&D program develops and evaluates new crop varieties of various crops adapted to the Canadian Prairies. Varieties have been brought to market through in-house breeding efforts, and through co-operative agreements with other organizations. Agricore United tests crop varieties to evaluate their suitability for western Canada's diverse climate.

## CURRENT ACTIVITIES

Agricore United's business is divided into several operating divisions:

- Grain Merchandising, Transportation and Logistics
- Terminal Services
- Crop Production Services
- Livestock Services
- Country Operations

Agricore United has access to advanced genetics through a number of plant breeding alliances:

Wheat - AgriPro Wheat  
Linola™/flax – Joint Venture with CSIRO of  
Australia  
Malt & Specialty starch barley - University of  
Saskatchewan  
Buckwheat - Kade Research  
Oats - General Mills

Increasing focus on sustainable practices in crop  
production and support for government  
environmental farm planning initiatives to ensure  
the consistent supply of safe and wholesome crop  
products.

### **DESIRED INVESTMENT**

### **PARTNERSHIPS**

Agricore United is interested in the establishment  
of partnerships with manufacturers and  
processors for the development and supply of  
commodity, identity preserved, and specialty raw  
materials for food, functional ingredients, feed and  
industrial products.

**API GRAIN PROCESSORS**

8010 Edgar Industrial Crescent  
Red Deer, Alberta  
Canada T4P 3R3

Telephone: (403) 347-7557  
Facsimile: (403) 346-2662  
E-mail: info@apigrainprocessors.com  
Website: www.apigrainprocessors.com

Kerry Keating  
General Manager/Sales

**NATURE OF BUSINESS**

API Grain Processors is a unique grain processing facility that uses wheat to produce flour, vital wheat gluten, fuel grade ethanol and livestock feed.

API Grain Processors is located in Red Deer, Alberta, Canada. This grain fractionation facility is the first of its kind in North America and uses wheat as its feedstock in the initial stages of production. Our plant's design incorporates leading edge technologies and processes to produce high quality bread flour, vital wheat gluten, motor fuel grade ethanol, and livestock feed.

The Company is a partnership between the Edmonton Pipe Industry Trust Fund, the general partner and Agri Partners International Inc., the limited partner. Agri Partners Inc. is a privately held Alberta based corporation located in Calgary, Alberta.

**MAJOR ACHIEVEMENTS**

- 100% capacity and utilization level of large plant in one year with a focus on quality

**COMPANY PROFILE**

|                  |                           |
|------------------|---------------------------|
| Sales Volume:    | > \$25 M                  |
| R&D Expenditure: | N/A                       |
| Employees:       | 40                        |
| Facilities:      | Large Processing Facility |
| Ownership:       | Private                   |
| Key Alliances:   |                           |

- Premier Cereals Inc.

**COMPANY BACKGROUND**

API Grain Processors has been in operation for two years and focuses on quality. The Company has an Identity Preserved Row Material (wheat) contracted directly with farmers. The plant processes 240 tones of wheat 365 days a year.

**CURRENT ACTIVITIES**

Their primary products result from a process known as grain fractionation. The main products of this process are:

- Bakery Flour
- Vital Wheat Gluten
- Fuel Grade Ethanol
- Livestock Feed

Our high quality bakery flour and vital wheat gluten products function well in baked goods and are sold primarily in these markets.

API Grain Processors produces a fuel grade ethanol that is used as a gasoline additive. Ethanol blended fuels have proven to reduce tail pipe emissions, increase octane levels and reduce green house gas generation.

Their livestock feed product contains both high fiber and protein levels that are essential ingredients in animal feed rations for maintenance and growth.

Market partnerships also play a vital role in the marketing of their products. API Grain Processors has formed market partnerships with Premier Cereals Inc. and International Marketing Associates, Inc. (IMA).

IMA plays a key role in marketing our motor fuel grade ethanol.

Premier Cereals is a major U.S. and International supplier of oat products along with other specialty grain ingredients.

**COLLABORATIVE ARRANGEMENTS SOUGHT**

The Company has available large quantity of soluble as well as insoluble fibre and would like to align with a large nutraceutical company.



## **BIO-K + INTERNATIONAL INC.**

495 Armand - Frappier Blvd.  
Laval, Quebec  
Canada H7V 4A7

Telephone: (450) 978-2465 Ext. 223  
(800) 593-2465

Facsimile: (450) 978-9729

E-mail: info@ibiokplus.com

Website: www.biokplus.com

Claude Chevalier  
President & CEO

### **NATURE OF BUSINESS**

Bio-K + International Inc. produces, sells and distributes a high concentration of live bacterial culture using a milk subtract as carrier. Capable of improving one's health, this form of food is called Probiotic.

The mission is to optimize one's health and quality of life through nutrition therapy. To do so, the company is counting on a fast expansion, a worldwide presence in international and local market.

### **MAJOR ACHIEVEMENTS**

- Bio-K + Acidophilus Fermented Milk CL1285 is the new standard in therapeutic acidophilus and casei. It is the world's first super-potent, 100% natural, fresh, live culture containing no less than 50 billion active cells per serving at consumption. It is the only fresh live culture acidophilus and casei product in an ideal base of milk solids.
- Bio-K + is prepared according to strict GMP standards in ultra sanitary laboratories in Canada.

### **COMPANY PROFILE**

|                               |  |
|-------------------------------|--|
| Sales Volume:                 | 4,000,000  |
| R&D Expenditure:              | 400,000  |
| Employees:                    | 39   |
| Facilities:                   | 20,000 sq. feet laboratory in Laval High Technology & Scientific Parc. |
| Ownership:                    | Private  |
| Trade:                        | Exporting  |
| Total exports:                | \$1 - \$10 Million   |
| Percentage of sales exported: | 25 - 49.9%   |

Key Alliances:

- Whole Foods
- Tree of Life

### **COMPANY BACKGROUND**

Created in 1994 by Mr. Claude Chevalier and Dr. François -Marie Luquet, Bio-K plus is world first on three fronts:

- Scientific discovery CL1285
- New technology
- Unique combination of Lb. acidophilus and Lb. casei

Bio-K + intends to penetrate the food market with a 100% natural, fat-free, fermented, Lb. acidophilus milk made from milk ingredients. The production of this product is based on a scientific discovery in the area of bacteriological cultures.

Registered at France's Pasteur Institute, this discovery by François-Marie Luquet Dr. es Science Pasteur's Institute France, a renowned microbiologist, who has isolated an Lb. acidophilus lactic culture and kept it live and active in a food form guaranteeing its potency at consumption.

The Food Research and Development Centre of Agriculture Canada in St-Hyacinthe (CRDA) and research laboratories at Laval University in Quebec city were the sites for the technical team's success. The group developed a complex manufacturing process combining dairy and pharmaceutical technologies whereby the bacterium isolated by Dr. Luquet can be concentrated as a food product with nutritional and therapeutic value.

### **CURRENT ACTIVITIES**

Bio-K+ is currently being sold in all provinces across Canada, the U.S.A & Puerto Rico.

### **DESIRED INVESTMENT**

### **PARTNERSHIPS**

For distribution in Mexico, Brazil, Argentina, Chile, New England, Holland, Germany and France.

## **BIORIGINAL FOOD & SCIENCE CORP.**

102 Melville Street  
Saskatoon, SK  
Canada S7J 0R1

Telephone: (306) 975-1166  
Facsimile: (306) 242-3829  
E-mail: [business@bioriginal.com](mailto:business@bioriginal.com)  
Website: <http://www.bioriginal.com>

Mr. Jerome Konecsni  
Vice President of Corporate Development

### **Nature of Business**

Bioriginal Food & Science Corp. is the world's leading supplier of essential fatty acid (EFA) oils, including flax, evening primrose, borage (starflower), black currant and fish, as well as CLA. Delivery systems range from bulk oil and capsules, to finished, packaged products. In addition to the standard oil or seed formats, we supply custom formulations, highly-concentrated EFA oils, water-soluble EFA powders, and a line of flax-based low net carb functional food products including BakOmega™, FibrOmega™ and ProBioFlax™.

### **Major Achievements**

- Bioriginal's oils are non-GMO and meet WHO Codex standards for edible oil safety
- Products are offered that are certified by Quality Assurance International (QAI), and endorsed as Kosher and Pareve
- Bioriginal was the first company in Canada to establish pharmaceutical level GMP standards for oil processing and be certified as such by

- Health Canada
- 2003 ABEX Business of the Year Award
- 2003 ABEX Award for Exports
- 2003 named Innovation Leader by the National Research Council of Canada
- 2002 ABEX Award for New Saskatchewan Product
- 1998 Ernst and Young Canadian National Entrepreneur of the Year Citation for Innovation Product Development
- 1998 Ernst and Young Canadian National Entrepreneur of the Year Award for the Prairie Region (Agriculture and Food Category)
- 1996 SABEX Award for export
- 1994 ABEX new Venture Award

### **Company Profile**

|                               |   |
|-------------------------------|---|
| Sales Volume:                 | n/a   |
| R&D Expenditure:              | n/a   |
| Employees:                    | 80  |
| Facilities:                   | Saskatoon, Winnipeg, Toronto, Montréal, Netherlands and China |
| Ownership:                    | Private   |
| Trade:                        | Exporting   |
| Export destinations:          | United States<br>Europe<br>Japan                              |
| Total exports:                | n/a   |
| Percentage of sales exported: | n/a   |

#### KEY ALLIANCES:

- University of Saskatchewan
- Agriculture and Agri-Food Canada

- National Research Council

### **COMPANY BACKGROUND**

Bioriginal, which was established in 1993, has since grown to have a distribution network spanning six continents, and includes offices in Canada, Europe, and China. Our extensive product lines serve five key markets: nutritional supplements, functional foods, cosmetics, pet and veterinary products, and over-the-counter pharmaceuticals.

Our entire process actually begins in our growers' fields, utilizing the knowledge and experience of our agronomists to ensure that only the best seeds advance into Bioriginal's EFA products. Our specialized Bio-Elite™ quality assurance process allows us to monitor production and quality to guarantee the safety, security and reliability of our products. Bioriginal has a sophisticated enterprise resource management system that ensures product traceability, and is registered with the FDA in compliance with the U.S. Bioterrorism Act.

### **CURRENT ACTIVITIES**

Bioriginal was built on science, and continues to be a leader in EFA research. Our R&D team works closely with the scientific community, staying abreast of the latest research and participating in clinical trials. Bioriginal's team of scientists is closely linked to the University of Saskatchewan, the only campus in Canada offering all five health sciences. Bioriginal's scientists also have close ties with Innovation Place, Agriculture and Agri-Food Canada, the National Research Council, the Saskatchewan Research Council, and the Protein Oil & Starch (POS) Pilot Plant.

### **DESIRED INVESTMENT PARTNERSHIPS**

Our vertical integration, strategic alliances, rigorous quality control and geographic location all contribute to our ability to guarantee a continuous supply of the cleanest, purest product on the market today. By incorporating research, sourcing, processing, marketing and distribution capabilities, we are able to manage the impact of many of the variables that determine success in today's competitive marketplace. Our focus is on developing strategic alliances and partnerships that help maintain our competitive edge and our lead position in the marketplace.

## ***BC FUNCTIONAL FOOD & NUTRACEUTICAL NETWORK***

Room 218 - Food, Nutrition, and Health Bldg.  
2205 East Mall  
Vancouver, BC  
Canada V6T 1Z4

Telephone: (604) 822-6920  
Facsimile: (604) 822-5143  
E-mail: [info@bcfn2.com](mailto:info@bcfn2.com)  
Website: <http://www.bcf2.com>

Contact:  
Dorota Zawistowska, Communications and Marketing  
Manager

### **NATURE OF ORGANIZATION**

The British Columbia Functional Food & Nutraceutical Network (BCFN) is an association representing the functional food, nutraceutical and natural health product industry in BC and the rest of Canada. The purpose of the organization is to facilitate the exchange of scientific and technological information among its members.

BCFN's vision is one of:

- A strong and growing BC industry
- A Canadian regulatory regime that supports the development and use of functional foods, nutraceuticals, and natural health products
- Well-informed consumers and health practitioners who can easily access safe, effective and consistent quality products
- British Columbia is an internationally valued centre for expertise, raw materials, research, industry, markets and supportive infrastructure

#### **BCFN's Program Goals**

- Increased development and growth of BC and Canadian companies.

- Increased business activity between participants in the BC and national industry cluster.
- Wide recognition of the quality of BC and Canadian products and know-how.
- BCFN members have timely access to leading expertise, information and technology for competitive advantage.
- Domestic government policies that support the industry's growth and are sensitive to the needs and realities of the BC industry.
- Linkages with relevant national and international bodies and initiatives.

### **MAJOR ACHIEVEMENTS**

- BCFN is the recognized source in British Columbia of reliable information on functional foods, nutraceuticals, and natural health products (NHPs).
- Since 2003, hosted 15 Breakfast Seminars pertaining to clinical trial issues related to functional foods and NHPs.
- Since 2003, hosted 2 international conferences on Functional Foods and Nutraceuticals in Japan and China as well as 7 business development seminars across the province of BC.
- Incorporated an NHP Analytical Division which deals with technical issues in NHP analysis which so far has organized 6 successful events and workshops.

### **COMPANY PROFILE**

|                  |                    |
|------------------|--------------------|
| Sales Volume:    | N/A                |
| R&D Expenditure: | N/A                |
| Employees:       | 2                  |
| Facilities:      | N/A                |
| Ownership:       | Non-profit society |
| Trade:           | N/A                |

# **FUNCTIONAL FOOD & NUTRACEUTICAL TECHNOLOGIES IN CANADA**

Export destinations: N/A  
(Please list the country(ies) your company is currently exporting to)  
Total exports: N/A  
Percentage of sales exported: 0%

- British Columbia Ministry of Agriculture, Food and Fisheries
- Agriculture and Agri-Food Canada
- University of British Columbia, Faculty of Agricultural Sciences
- British Columbia Institute of Technology, Herbal Evaluation & Analysis Laboratory
- British Columbia Herb Growers Association
- British Columbia Seabuckthorn Growers' Association
- The British Columbia Association of Ginseng Growers

## **ORGANIZATIONAL BACKGROUND**

The British Columbia Functional Food and Nutraceutical Network was formed as an industry initiative due to a recognized need for information and scientific technological exchange among related industries and colleagues including manufacturers, researchers, analytical labs, various governments, education, retailers, growers and consultants. BCFN serves as a network and resource to facilitate the latest, up-to-date information to members.

The role of the BCFN is to:

- Determine the principle challenges facing Canadian nutraceuticals in general and BC nutraceuticals and food industry in particular
- Bring together the key players in the development of the industry, and identify the principle challenges to the industry
- Identify and inform members of new issues and how they will affect the industry
- Encourage strategic alliances within industry – academia and government
- Identify and facilitate business development opportunities for member companies

The BCFN is committed to promote and maintain the stature of the functional food, nutraceutical and natural health product industry in BC and Canada. It focuses on providing a forum for discussion and dissemination of scientific and technical information to ensure growth and development of the industry.

## **Key Alliances:**

- Western Economic Diversification

## **CURRENT ACTIVITIES**

Providing to BCFN members:

- Preferred access to information and networking through reduced rates to frequent seminars and conferences
- Opportunities for input on issues affecting the nutraceutical and functional foods industry
- Advanced notification of upcoming events including future services as the BCFN grows
- Web casting of seminars virtually across the country

Other activities include:

- Promoting BCFN corporate members
- Increasing the profile of the science of nutraceuticals, functional foods and natural health products within BC
- Setting up database of scientific and technological resources for BCFN members

## **DESIRED INVESTMENT PARTNERSHIPS**

- Seeking collaborative agreements with similar associations and organizations
- Funding to expand membership services to the nutraceutical and functional foods sector

- Promoting and partnering research efforts to support applied research
- Work with related organizations to identify industry and sectoral challenges
- Seeking alliances with organizations promoting product quality, purity, potency and efficacy
- Seeking investment partners for the BCFN and for the BC functional food and nutraceutical industry

**BUNGE CANADA**

2190 South Service Rd. West  
Oakville ON  
Canada L6L 5N1

Telephone: 905-825-7900  
Facsimile: 905-825-1336

14711-128th Avenue  
Edmonton, Alberta  
Canada T5L 3H3

Telephone: (780) 447-6960  
Facsimile: (780) 453-5764  
E-mail: [greg.morhun@bunge.com](mailto:greg.morhun@bunge.com).  
Website: <http://www.bungecanada.com>

G.W. Morhun  
Vice President – Retail & Export

**NATURE OF BUSINESS**

Bunge Canada is recognized as a leader in the technology and manufacture of edible oil products, and a leading marketer of oilseed-based products.

Bunge Canada has advanced to become Canada's largest processor of edible oil products.

Successful operation of the company is founded upon total integration of the process. Bunge Canada monitors every aspect of the product from seed growing, through to seed crushing, oil processing and packaging. The results are evident in highly efficient operations and total quality control.

**MAJOR ACHIEVEMENTS**

- Bunge Canada is active in exporting edible oil products. Their bulk and packaged oil products are sold world wide.
- Bunge Canada compelling strength in the marketplace, with unrivaled ability to meet demand for edible oil products.

**COMPANY PROFILE**

Sales Volume: N/A

R&D Expenditure: N/A

Employees: N/A

Facilities: Hamilton ON, Toronto ON, Oakville ON, Altona MB, Harrowby MB, Nipawin SK, Wainwright AB, Fort Saskatchewan AB, Edmonton AB, Canada

Ownership: Bunge Inc.

Trade: Exporting

**COMPANY BACKGROUND**

Bunge Canada the largest processor of canola seed products in the world. The company is completely integrated from the producers' fields through to operations of crushing, refining and packaging facilities.

Canola Oil has gained an excellent reputation for its nutritional qualities in our diet and is the most important component of the seed in terms of its market value.

Canola Meal is an important source of protein in animal feeding.



**CURRENT ACTIVITIES**

Many CanAmera Products are available for Retail, Food Service and Industrial applications:

- Canola Oil
- Canola Margarine
- Canola Shortenings
- Whipped Toppings
- Emulsifiers
- Canola Meal

**DESIRED INVESTMENT**

**PARTNERSHIPS**

Bunge Canada is interested in establishing agreements with experienced and knowledgeable trading partners in all countries worldwide.

## **BURCON NUTRASCIENCE CORPORATION**

1946 West Broadway  
Vancouver, BC  
Canada V6J 1Z2

Telephone: (604) 733-0896  
Facsimile: (604) 733-8821  
E-mail: [info@burcon.ca](mailto:info@burcon.ca)  
Website: <http://www.burcon.ca>

Allan Yap  
Chairman & CEO

Johann Tergesen  
President and COO

### **NATURE OF BUSINESS**

Burcon NutraScience Corporation is a research and development company developing a portfolio of composition, application and process patents around its plant protein extraction and purification technology. The goal of Burcon's research is to develop its patented process to utilize inexpensive oilseed meals for the production of purified plant proteins that exhibit certain nutritional, functional or nutraceutical profiles. Burcon, in conjunction with Archer Daniels Midland (ADM), is currently focusing its efforts on developing the world's first commercial canola protein isolates, Puratein® and Supertein™. Canola, recognized for its nutritional qualities, is the second-largest oilseed crop in the world after soybeans. Burcon's goal is to develop Puratein and Supertein to participate with soy, dairy and egg proteins in the expanding protein ingredient market, with potential uses in prepared foods, nutritional supplements and personal care products.

### **MAJOR ACHIEVEMENTS**

- In September 2003, Burcon entered into a license and development agreement with ADM to commercialize Burcon's canola protein ingredients, including Puratein and Supertein;
- To date, Burcon has raised over \$17.0 million through equity financings;
- Over the past four years, Burcon has filed for fourteen separate patents over its protein extraction technology; applications of its two lead protein products and composition of its proteins.

### **COMPANY PROFILE**

|   |  |
|---|--|
| Sales Volume:   | N/A  |
| R&D Expenditure:  | \$1,490,746 (fiscal 2003)  |
| Employees:  | 15   |
| Facilities:   | Corporate offices in Vancouver, B.C.; research facility in Winnipeg, MB. |
| Ownership:  | Publicly traded on the TSX Venture Exchange (TSX-V: BU)                  |
| Trade:  | N/A  |
| Export destinations:<br>(Please list the country(ies) your company is currently exporting to) | N/A  |
| Total exports:  | N/A  |
| Percentage of sales exported:   | 0%   |

Key Alliances: Archer Daniels Midland

# ***FUNCTIONAL FOOD & NUTRACEUTICAL TECHNOLOGIES IN CANADA***

---

## **COMPANY BACKGROUND**

Since acquiring BMW Canola Inc. in October 1999, Burcon has focused on commercializing its protein extraction technology.

During the initial two-year development stage, Burcon successfully completed a large-scale pilot production facility. Burcon then focused on improving its core technology and strengthening its patent portfolio in an effort to secure a strategic alliance to commercialize its products.

## **CURRENT ACTIVITIES**

Burcon's goals for fiscal year 2004 include:

- To support the license and development agreement with ADM; and
- To continue to strengthen its patent portfolio through intellectual property development.

## **CAN-OAT MILLING INC**

Box 520  
Portage la Prairie, Manitoba,  
Canada, R1N 3W1

Telephone: (204) 857-9700  
Facsimile: (204) 857-9500  
Email: info@can-oat.com  
Website: www.can-oat.com

Karl Gerrand  
President

### **NATURE OF BUSINESS**

Can-Oat Milling focuses on being a leading supplier to industrial cereal and baked goods manufacturers. The company processes raw oats into both intermediate and finished goods and provides its clients with a unique package of products, service, and technology. The company's knowledge of oats processing and its continued research allows it to offer some of the best oat products in the marketplace.

The plant capacity is over 10,000 cwt per day, and the facility operates seven days per week. Can-oat Milling has formed a network of distributors throughout North America markets.

### **MAJOR ACHIEVEMENTS**

- Saskatoon Plant was the recipient of award for design excellence sponsored by the consulting engineers of Manitoba association on April 6, 2000
- Since production start-up of the company's second plant, sales growth has increased 57%

### **COMPANY PROFILE**

|                               |   |
|-------------------------------|---|
| Sales Volume:                 | n/a   |
| R&D Expenditure:              | \$ > 60,000   |
| Employees:                    | 135   |
| Facilities:                   | Combined plant capacity is over 10,000 cwt of finished oat products                   |
| Ownership:                    | Cooperative   |
| Trade:                        | Exporting   |
| Export destinations:          | United States, Latin America, Central America, South America, Carribean and Australia |
| Total exports:                | n/a   |
| Percentage of sales exported: | 95%   |

Key Alliances:

- Saskatchewan Wheat Pool

### **COMPANY BACKGROUND**

Can-Oat Milling Products was founded in 1989. On April 30, 1998, Can-Oat became a wholly owned subsidiary of Saskatchewan Wheat Pool. This was a step taken to become part of the most dynamic agribusiness cooperative in the world. In 1991, Can-Oat built its first state of the art oat facility in Portage la Prairie, Manitoba. Soon after, the company built a second plant in Saskatoon. Together the two facilities process over a million pounds of oat ingredients per day.

Oat based foods have long been recognized for their health benefits, and it is now generally accepted knowledge that oats make a significant contribution to human health.

### **CURRENT ACTIVITIES**

The product line of Can-Oat Milling includes a full range of products:

- Old fashioned flakes
- Quick cooking oats
- Baby oat flakes
- Fine and medium oat bran
- Oat flour
- Whole oat groats
- Steel cut oat groats
- Crushed oat products

Can-Oat Milling is exporting approximately 95% of its production. With a strong U.S focus, Can-Oat is concentrating its marketing efforts in Mexico, Central America, the Caribbean, South America and Australia. Can-Oat maintains a focus on being a leading supplier to industrial cereal and baked goods manufacturers.

### **DESIRED INVESTMENT PARTNERSHIPS**

Can-Oat Milling is dedicated to cooperative development, in all areas of the food production process, and is enthusiastic in participating in technology transfer. Areas of interest: oat processing, material handling, agronomic practices, food safety/sanitation and product development.

**CANOLIO INC.**

1751 Richardson, # 7.403  
Montreal, Québec  
H3K 1G6 Canada

Telephone: (514) 748-4367  
Facsimile: (514) 748-5971  
E-mail: Info@Canolio.com  
Website: www.Canolio.com

Lucie E. Létourneau, MBA  
President & CEO

**NATURE OF BUSINESS**

Member of the BioIndustry network, Canolio specializes in the promotion and edification of eco-friendly product lines made from hemp oil and organic hemp seeds. Dedicated through R&D in providing innovative organic hemp by-products, Canolio offers avant-gardiste hemp products with highly controlled quality procedures. In order to control the quality of the hemp seeds and oil, Canolio also cultivates organic hemp in southern Quebec. Industrial hemp is the premier sustainable and eco-friendly choice.

**MAJOR ACHIEVEMENTS**

- First & only company to have had its products sold over the national television in Canada and United States.
- First company to develop hemp coffee.
- First company to develop a line of hemp cosmeceutics & hemp nutraceuticals
- First and only hemp company to be member of BioQuébec
- First company offering hemp nutraceuticals
- 1<sup>st</sup> hemp organization having deposited a patent on a hemp dermoceutic product
- Only hemp company to be representing Canada at the SANA 2003 in Italy

- Only Canadian hemp company to be member of the Bio-Industries network
- Only Hemp company offering its products through major retail chain stores.
- Canolio represented Canada at the International Cannabusiness trade show (Germany) in 2001.
- Member of the HIA (Hemp Industry Association)
- Member for the CHTA (Canadian Hemp trade Association)

**COMPANY PROFILE**

Sales Volume: \$500,000-\$750,000

R&D Expenditure: 15%

Total Exports: n/a

Percentage of sales exported: 35%

Trade: Manufacturing, Distributing, Exporting

Employees: 6

Facilities:

- Corporate office in Montreal
- 2 transformation plants in Qc
- 1 warehouse in France, 1 in New York, 1 in Montreal

Ownership: Private

Key Alliances:

- CQVB (Centre Québécois de la valorisation des biotechnologies)
- MAPAQ
- CEIM
- Bio Québec

## **COMPANY BACKGROUND**

Canolio inc. was founded in 1998 following the new Canadian legislation pertaining to hemp cultivation and to fill the need for quality hemp nutraceuticals, functional food and cosmeceutics.

## **CURRENT ACTIVITIES**

Research aimed at enhancing , stabilizing and isolating specific healthful components and extracts of the hemp oil. Development of new technologies and products transforming thus enhancing the hemp biomass into beneficial health care products. Hempseed oil, has a unique and rich EFA (essential fatty acids) profile, which are vital for maintaining healthy skin, are marketed through Canolio's cosmeceutic line as some of the natural active ingredients that can help in rebalancing skin hydration, and helping in dermatitis itching. Through its nutraceutical & functional food line, it markets the high presence of Omega3 and Omega6.

Canolio is also developing innovative health products for the animal markets. Canolio inc. is well positioned to rapidly penetrate and expand sales in the nutraceutical & functional food industry. Canolio inc. has developed strong relationships with Germany, Switzerland, Italy, Holland and France.

## **DESIRED INVESTMENT PARTNERSHIPS**

- Distribution agreements to develop present and future product lines for the gynecologists markets and specilized health professional markets.
- Seeking strategic alliamces for the mass market targets in United States.

## **CEAPRO INC.**

4046 RTF University of Alberta  
8308 – 114 Street  
Edmonton, AB  
Canada T6G 2E1

Telephone: (780) 421-4555  
Facsimile: (780) 421-1320  
e-mail: info@ceapro.com  
Website: <http://www.ceapro.com>

Mark J. Redmond, Ph.D.  
President & CEO

### **NATURE OF BUSINESS**

Ceapro is a biotechnology company that develops and commercializes natural products for medical and animal health industries using proprietary technology and renewable resources. Stated simply: *Nature Enhancing Life®*.

The focus for the company is the extraction of oat beta glucan and colloidal oat extracts for the personal care, animal health, and food, functional food, and nutraceutical industries.

The company's research is focused on enhancing the extraction technologies to create the capability to extract active compounds from other plant materials. Ceapro's platform technology is based on proprietary separation and molecular fingerprinting processes.

### **Major Achievements**

- Launched new animal health product line in Japan. Achieved number one product status.
- Completed alliance with semundo for research and development of new seed varieties.

- Completed distribution agreement with Symrise for Beta Glucan and Colloidal Oat Extract for personal care and cosmetics.
- Expanded intellectual capital base with patents for Beta Glucan, Colloidal Oat Extract, and AccuScreen™.
- Completed clinical development of AccuScreen, a screening test for pre-diabetes.

### **COMPANY PROFILE**

Sales Volume: \$ 2.2 M  
R&D Expenditure \$ 354,000  
Employees: 13  
Facilities: -Leased office space  
-Production is taking place at the Leduc Food Processing Development Centre, an Alberta government facility

Ownership: Public (TSX : CZO)  
Trade: Exporting  
Export destinations:

- Japan
- Germany
- Australia
- USA

Total exports: \$1 - \$10 Million  
Percentage of sales exported: 98%

#### Key Alliances:

- Agricore
- Daisen Sangyo
- Symrise Inc.
- Nippon Zenyaku Kogyo
- Semundo
- Vet Business (Australia)

### **COMPANY BACKGROUND**



Ceapro was founded and began biotechnology research and development in 1991. Since then, the company has acquired Minerva Animal Health Corp., which develops and markets products in the field of veterinary health. Ceapro has amalgamated with Vexco Healthcare (December 1996). Ceapro's expertise in agriculture and biotechnology is strengthened through collaborations with grain suppliers, government agencies, research institutions, and product manufacturers and distributors.

### **CURRENT ACTIVITIES**

Ceapro has developed leading edge extraction technologies that produce standardized formulations for the personal care, animal health, and functional food industries.

Ceapro is continuing to strengthen its extraction technology base and continues to develop marketing partnerships to address the industry segments which will and can use the Ceapro extracts in their end-use products.

Ceapro will develop other novel extracts by applying its separation technology to other plant materials.

### **DESIRED INVESTMENT PARTNERSHIPS**

Strategic licensing and distribution agreements with companies having:

- established distribution and retail networks, or
- integrated manufacturing, distribution and retailing capabilities to bring Ceapro's products to market.

## **CELEX LABORATORIES INC.**

Address: 310-19358-96<sup>th</sup> Ave  
Surrey, British Columbia  
V4N 4C1  
Telephone: (604) 888-1235  
Facsimile: (604) 888-7322  
E-mail: celex-laboratories@shaw.ca  
Website: www.celexlaboratories.com

Contact: Steve Liao  
Title: President

### **NATURE OF ORGANIZATION**

Celex Laboratories Inc. specializes in natural herbal products and natural health products, providing:

1. Custom manufacturing services
2. Analytical services to accompany finished products
3. Creation / production / sale of Celex's own brand name products (Natural Goodness, Natural Products).

Manufacturing can produce tablets, gelatin capsules, granules or teabags.

### **MAJOR ACHIEVEMENTS**

- Developed rapid/effective method for determination of ginsenosides
- Sole Canadian possessor of a closed-vacuum extractor (200kg capacity) and spray dryer

### **ORGANIZATIONAL PROFILE**

|                                  |  |
|----------------------------------|--|
| Sales Volume:                    | ➤ \$1 - \$10 Million   |
| R&D Expenditure:                 | ➤ <\$50,000  |
| Employees:                       | 10   |
| Facilities:                      | 310-19358-96 <sup>th</sup> Ave.<br>Surrey, British Columbia<br>V4N 4C1 |
| Ownership:                       | Corporation  |
| Trade:                           | ➤ Exporting  |
| Total exports:                   | ➤ \$250,001 - \$500,000  |
| Percentage of sales<br>exported: | ➤ 10 - 24.9 %  |
| Export destinations:             | Hong Kong, Japan, South<br>Korea, Taiwan, Indonesia.                   |

### **ORGANIZATIONAL BACKGROUND**

Established in 1987, the initial purpose of Celex Laboratories Inc. was research and developmental services in the area of molecular biological fields and natural pharmaceutical products.

Today, Celex Laboratories has evolved into a company focused on the manufacturing and marketing of natural health products. Based in the Greater Vancouver area, Celex plays a significant role in both the local and global market.

### **CURRENT ACTIVITIES**

Currently specializing in the manufacturing and marketing of natural health products. Celex's facility includes access to many processing machines, some of which are the only of their kind in Canada.

**DESIRED INVESTMENT**

**PARTNERSHIPS**

Celex welcomes potential investors, distributors and exporters interested in expanding Celex products into new markets.

**FOOD-NUTRITION INC.**

3433 Bathurst St, Suite 100  
Toronto, ON  
Canada M6A 2C3

Telephone: (416) 256-9761  
Facsimile: (416) 256-9029  
E-mail: info@foodnutrition.com  
Website: <http://www.foodnutrition.com>

Mr. Marcel Pitino  
President

Dr. Jack Barkin  
Chief Medical Officer

Mr. Craig Simpson  
Director of Marketing

Louis Hochman  
Director

Mr. William Goldstein  
Director

Mr. Allan Birnbaum (C.A.)  
Director of Finance

**NATURE OF BUSINESS**

It is the mission of Food-Nutrition Inc. to develop and market a line of nutraceutical/functional food products for sale in North America, and internationally beginning with the *Pros-TECT* Men's Health Bar. These products will treat pre-existing symptoms of specific maladies as well have preventative attributes.

**MAJOR ACHIEVEMENTS**

- Developed a new platform technology for delivering ingredients that have shown to have health benefits
- Produced *Pros-TECT*, Canada's (North America)'s first nutraceutical health bar for prostate health
- Several other bars in development (with medical experts) for other specific medical conditions
- Legendary Celebrity Golfer 'Arnold Palmer' has endorsed the *Pros-TECT* Men's Health Bars and is also a user.
- Winners of People Choice Award for best tasty energy bar (1996 National Nutritional Food Association EXPO/96)
- Signed agency agreement L.G.Best & Associates to represent FNI in Europe and the Far East.

**COMPANY PROFILE**

|                      |                    |
|----------------------|--------------------|
| Sales Volume:        | \$500,001 - \$1 M  |
| R&D Expenditure:     | > \$2,500,000      |
| Employees:           | 5                  |
| Facilities:          | Outside production |
| Trade:               | Exporting          |
| Export destinations: | USA/Europe/Asia    |
| Total exports:       | \$1,500,000        |
| Ownership:           | Private            |

Key Alliances:

- Male Health Clinic
- IMG (International Management Group)
- Arnold Palmer Group

**COMPANY BACKGROUND**

# ***FUNCTIONAL FOOD AND NUTRACEUTICAL TECHNOLOGIES IN CANADA***

---

Dr. Jack Barkin, Chief Urologist with the Humber River Regional Hospital in Toronto and director of the Male Health Centre teamed up with Marcel Pitino and Louis Hochman, food experts, to establish Food-Nutrition Inc.

The principals have expertise in product development, marketing, nutritional sciences and medicine. These skills have been utilized to create innovative, effective products.

The Company is the first in Canada to launch a nutritional health bar specifically designed for men's prostate health. This bar contains beneficial vitamins, minerals and phyto-medicines.

Mr. Craig Simpson, Director of Marketing, joined Food-Nutrition Inc. in 2000 following a 35-year career in marketing and advertising. Starting with Leo Burnett in Chicago and later moving to McCann-Erickson in Toronto, Mr. Simpson worked in all disciplines of the advertising agency business: media account service, creative and management. His major client responsibilities included: Kellogg's, Nestle, American Express, and Coca-Cola. Mr. Simpson served as CEO of McCann's Canadian operations for 10 years, with responsibility for offices in Toronto, Montreal and Vancouver. He also worked for McCann in New York and Atlanta on both U.S. and international assignments.

More recently, Mr. Simpson worked as Marketing Director for a major non-profit organization in the United States, and as a consultant handling projects throughout North America, making good use of his dual Canadian/American citizenship.

Mr. William(Bill) Goldstein, Director, is Executive Vice-President of Blackburn Group Incorporated (BGI), a London, Ontario based family owned company founded in 1853. A dual Canadian/American citizen, Mr. Goldstein began his business career in 1974 with the establishment of Compusearch Market and Social Research Ltd., a demographic analysis and mapping company. Compusearch grew from a one-man operation into the leading Canadian demographic and geographic analysis firm. He sold Compusearch to BGI in 1984, and since then has been responsible for the overall operating and investment strategy for all of BGI's companies.

Most recently, Mr. Goldstein oversaw the six-year acquisition, development and divestment of Carfax, Inc., a leading internet company providing vehicle histories for every used car on the road. Other responsibilities include direct management of the venture capital portion of BGI's portfolio, which includes stakes in four companies, including Food-Nutrition Inc., in a wide range of businesses.

Mr. Allan Birnbaum is currently a Chartered Accountant in a private practice. His expertise with the Chartered Banks and private investors has strategically positioned FNI as a leader in the Nutraceutical Industry.

## **CURRENT ACTIVITIES**

Food Nutrition is currently working with leading doctors to develop and expand their line of nutritional bars. The Company is also presently developing effective public relations and marketing programs to support the launch of these unique new products.

## **DESIRED INVESTMENT PARTNERSHIPS**

Food Nutrition is seeking:

- Investors and strategic alliances for further development and growth

## ***FORBES MEDI-TECH INC.***

Suite 200-750 West Pender Street  
Vancouver, BC  
Canada V6C 2T8

Telephone: (604) 689-5899  
Facsimile: (604) 689-7641  
E-mail: [info@forbesmedi.com](mailto:info@forbesmedi.com)  
Website: <http://www.forbesmedi.com>

Charles Butt  
President and CEO

### **NATURE OF BUSINESS**

Forbes Medi-Tech Inc. is a biopharmaceutical company dedicated to the research, development and commercialization of innovative prescription pharmaceutical and nutraceutical products for the prevention and treatment of cardiovascular and related diseases. Forbes' scientific platform is based on core sterol technology. By extracting plant sterols from wood pulping by-products, Forbes has developed cholesterol-lowering agents to be used as pharmaceutical therapeutics, dietary supplements and functional food ingredients.

Currently, Forbes is developing products in three large market segments: functional foods, pharmaceutical therapeutics and dietary supplements. Their lead product, Reducoil™, is being sold as a functional food and dietary supplement ingredient to treat elevated cholesterol levels, a major risk factor for cardiovascular disease and the leading cause of heart disease in North America. Forbes is also developing FM-VP4, an amphipathic (water-soluble) analogue of phytosterol, which has shown dramatic lipid-lowering and anti-atherosclerotic properties in animal studies as well as promising anti-obesity indications.

### **MAJOR ACHIEVEMENTS**

- Forbes has filed several U.S. Patent Applications for novel processes and formulations allowing the incorporation of Reducoil™ and other functional food ingredients into a wide variety of foods and beverages
- Secured US\$10.75 million financing, Great Point Partners & BioAsia acting as lead investors
- European Phase II trials completed for cholesterol-lowering drug, FM-VP4
- Appointment of Dr. Eric Topol, Chairman, Department of Cardiovascular Medicine and Chief Academic Officer of the Cleveland Clinic Foundation, to chairman of Forbes' Medical & Scientific Advisory Board
- FDA issued health claim letter to Forbes allowing Forbes to advertise the heart-health benefits of Reducoil™

### **COMPANY PROFILE**

|                  |                  |
|------------------|------------------|
| Sales Volume:    | \$14.3M (FY2003) |
| R&D Expenditure: | \$2.1 M (FY2003) |
| Employees:       | 20               |
| Facilities:      | Manufacturing    |

Ownership: Public  
Trade: Exporting

### Key Alliances:

- Chusei (U.S.A.) Inc.
- University of BC
- McGill University

### **COMPANY BACKGROUND**

From its inception, Forbes has prided itself on being an innovator. Established in 1992, the Company's was founded with an objective of developing a different kind of biotechnology company. The company's prime mandate was to search for and acquire innovative technologies in under-researched areas that could be fast-tracked to commercialization in large market segments.

By licensing and developing phytosterol extraction technology, the company was able to commercialize the production of plant sterols for functional foods and dietary supplements into a growing revenue stream. This revenue has provided funding for the ongoing pharmaceutical R&D program to develop FM-VP4.

### **CURRENT ACTIVITIES**

Forbes currently focuses its product development efforts on plant sterols derived from pulping and agricultural by-products. Plant Sterols have long been known for their cholesterol-lowering properties. Forbes believes it has made important technological advances in these areas and offers significant commercial opportunities in three distinct markets:

- Functional Foods: Reducon™ is a cholesterol-lowering ingredient for use in functional foods. Reducon™ has received FDA GRAS clearance.

- Prescription Pharmaceuticals: Forbes is developing FM-VP4, a prescription therapeutic, for the prevention and treatment of cardiovascular disease through the reduction of cholesterol. FM-VP4 is currently in Phase II clinical trials.
- Dietary Supplements: Reducon™ is incorporated into dietary supplement products. Pharmavite incorporates Reducon™ into Nature Made's "Cholest-Off". This product has a national ad campaign under way.

Forbes focuses the development of its technology within markets that offer significant potential. Each of its three target markets currently potentially represents a multi-billion dollar global market.

### **DESIRED INVESTMENT PARTNERSHIPS**

The Company's strategy is to leverage its core technologies through strategic partnerships and business associations to deliver functional foods, dietary supplements and pharmaceutical products focused in the prevention and treatment of cardiovascular and related diseases. To further the growth and development of its relative products, Forbes is interested in a partnership with a pharmaceutical company to assist in the commercialization of FM-VP4 and a nutraceutical company to assist in the growth of its cholesterol-lowering ingredient business.

Forbes is currently evaluating its capital strategy to raise additional funds to maximize the growth of the company without interruption from fund raising activities.



## **GELDA SCIENTIFIC INC.**

6320 Northwest Drive  
Mississauga, Ontario  
Canada L4V 1J7

Telephone: (905) 673-9320  
Facsimile: (905) 673-8114  
E-mail: [gelda@globalserve.net](mailto:gelda@globalserve.net)  
Website: <http://www.gelda.com>

Dr. C. Sen Gelda  
Chairman

### **NATURE OF BUSINESS**

Gelda Scientific Inc. manufactures and distributes food, health products, and industrial enzymes. The company also provides consulting, product development, and laboratory testing services to the food and agri-food sectors. In addition, the company operates a pharmaceutical manufacturing facility, which enables them to produce a wide range of nutritional and pharmaceutical products.

### **MAJOR ACHIEVEMENTS**

- Manufactures or distributes over 300 products
- Constructed a state-of-the-art pharmaceutical manufacturing facility
- Over 200 companies use the company's microbiological and chemical testing services
- Developed the technology to culture two of the most beneficial Bifido bacteria strains and incorporate these into common foods
- First company in Canada to introduce lactose-free ice cream and other dairy products

- In collaboration with leading Ayurvedic experts from India and Canada, the company has developed several Ayurvedic herbal products
- In 1986, Gelda was awarded a Canada Excellence Gold Award in Technology Transfer

### **COMPANY PROFILE**

Sales Volume: Not Available

R&D Expenditure: \$ 0.2 – 0.3 M

Employees: 25

Facilities: 7000 sq. ft. quality control laboratory and pilot plant  
8000 sq.ft. fully equipped HPB-approved pharmaceutical manufacturing facility  
18,000 sq.ft. warehouse

Ownership: Private

Trade: Exporting

### **COMPANY BACKGROUND**

Gelda Scientific is a family-owned company established in 1978. The company's main focus is on utilizing Canada's agricultural resources and turning them into industrial and consumer food and health products and processes. Products are marketed in Canada, the U.S., Europe and Asia.

### **CURRENT ACTIVITIES**

## ***FUNCTIONAL FOOD & NUTRACEUTICAL TECHNOLOGIES IN CANADA***

---

Gelda Scientific manufactures and distributes an extensive line of food and health products and provides a wide range of services to companies in the food and agri-food industries.

Research is focused on the development of new herbal products and probiotics.

The company's products include:

Health Products:

- bifidobacteria (probiotic) products
- lactase products
- phyto-therapeutical products
- Ayurvedic herbal products

Food Products:

- lactose-free dairy products
- rennet-free cheeses and snacks
- cooking oils and almond oil
- basmati rice and spices
- tropical juices and ice creams

Industrial Enzymes:

- lactase
- pectinase
- isoamylase
- lipase
- hemicellulase

Services include:

- tablet/capsule manufacturing and powder blending/filling
- microbiological and chemical analysis
- contract research & development
- GMP/HACCP training
- environmental audits
- nutritional labeling
- R&D tax credit

Gelda Scientific is one of the leading companies in Canada for the development of new industrial technologies and has directly contributed to the growth of numerous Canadian companies.

Gelda's activities in this area include:

- Identification of opportunities

- Development of business plans
- Transfer of technology
- Adaptation of international technologies

### **DESIRED INVESTMENT** **PARTNERSHIPS**

Gelda is interested in negotiating marketing and distribution agreements for its products.

## **GOURMET NUTRITION F.B. INC.**

2121-4 Leonard-De Vinci  
Ste-Julie, Quebec  
Canada J3E 1Z2

Telephone: (450) 922-2885  
Facsimile: (450) 922-2886  
E-mail: [info@gourmetfb.com](mailto:info@gourmetfb.com)  
Website: <http://www.gourmetfb.com>

Diane Auclair  
General Manager

### **NATURE OF BUSINESS**

Gourmet Nutrition F.B. Inc. is an approved food manufacturing plant and a licensed pharmaceutical firm, producing according to the Good Manufacturing practices generally recognized in North America and worldwide.

Gourmet Nutrition's main activities consists of manufacturing, importing and distributing Medicinal Herbs, Herbal Tea Bags, Botanicals and Supplements.

The company also provides supplemental services including blending, grinding, standardization and formula preparation.

### **MAJOR ACHIEVEMENTS**

- Gourmet Nutrition is a member of Canadian Health Food Association and the National Health Products Association

- Gourmet Nutrition has customers worldwide
- The company distributes over 50 lines of health products in Canada alone.

### **COMPANY PROFILE**

Sales Volume: \$ < 15 M (1999)  
R&D Expenditure: \$ < 1.0M (1999)  
Employees: 30 +  
Facilities: Manufacturing Plant and Warehouse in Ste-Julie

Ownership: Private  
Trade: Exporting

Export destinations:  
(Please list the country(ies) your company is currently exporting to)

Total exports: N/A  
Percentage of sales exported: 20%

Key Alliances:

- Main distributors in USA, Costa Rica, China , Hong Kong, Panama, Kuwait, Pakistan.
- Custom Manufacturing for a major company in South America

### **COMPANY BACKGROUND**

Gourmet Nutrition F.B. Inc is a company based in Quebec and founded in 1988. The company specializes in the field of natural foods. It is directed by Francine and Serge Breton, both having more than 30 years experience in health products.

# ***FUNCTIONAL FOOD & NUTRACEUTICAL TECHNOLOGIES IN CANADA***

---

Gourmet Nutrition has state-of-the-art equipment for processing plants and other ingredients in all forms (various cuts including fine tea-bag cuts and powders). These operations are required to further process the raw ingredients into food grade and pharmaceutical grade products.

All raw materials, materials in process and finished goods are thoroughly tested for integrity and consistency by Gourmet Nutrition's quality control personnel.

## **CURRENT ACTIVITIES**

Gourmet Nutrition F.B Inc. has full packaging capabilities for bottling, sealing, labeling and producing custom-made labels for customers seeking encapsulation and tea-bagging of herbs and food supplements.

The company provides private label packaging for wholesalers and re-sellers.

Phytovie and Herb-Xtra are the company's trademarks for food supplements and herbal teas.

## **DESIRED INVESTMENT**

### **PARTNERSHIPS**

Gourmet Nutrition F.B. Inc. is always looking for:

- Serious distributors of Herb-Xtra and Phytovie brands in other countries
- Custom Manufacturing and Private Labels for clients around the world

**HEMP OIL CANADA INC.**

Address: PO Box 188  
Ste. Agathe, Manitoba  
R0G 1Y0

Telephone: (204) 275-7616

Facsimile: (204) 261-7270

E-mail: info@hempoilcan.com

Website: www.hempoilcan.com

Contact: Shaun Crew

Title: President

Email: shaun@hempoilcan.com

**NATURE OF ORGANIZATION**

Hemp Oil Canada is dedicated to the procurement, processing, marketing, and distribution of both retail brand hemp food and hemp body care products, in addition to offering bulk wholesale, private label, and custom processing.

Hemp Oil Canada's goal is to produce the highest quality nutritious hemp seed and oil derivatives for use by value-added food processors, manufacturers, and distributors, creating a wide range of edible dfoods, nutritional supplements, and body care products.

**MAJOR ACHIEVEMENTS**

- Kosher certified
- Certified Organic (OCPP / Pro-cert Organic Systems certification)
- Member of Manitoba Food Processors Association
- Member of the Canadian Hemp Trade Alliance
- Member of the Hemp Industries Association.

**ORGANIZATIONAL PROFILE**

Sales Volume:

R&D Expenditure: √ \$1 - \$10 Million

Employees: 5 full time/ 1 part time

Facilities: 4000 sq.ft. processing & administrative facility

Ownership: Private corporation

Trade: √ Exporting

Total exports: √ \$500,001 - \$ 1 Million

Percentage of sales exported: √ 50 - 74.9%

Export destinations:

Key Alliances:

- Manitoba Food Processors Association
- Canadian Hemp Trade Alliance
- Hemp Industries Association

**ORGANIZATIONAL BACKGROUND**

In the Spring of 1999, Hemp Oil Canada opened its first 'hemp seed processing' facility in Canada following 14 months of intense market, product, and processing research and development. They continue today to work on a variety of R&D projects with strategic industry partners.

**CURRENT ACTIVITIES**

Hemp Oil Canada produces:

- Food products: hemp seed oil, hemp oil gelcaps, hulled hemp seed, toasted and roasted hemp seed, sterilized hemp seed, hemp coffee, hemp flour, and hemp protein powder; and
- Body care products: hemp enriched shampoo, and and body lotion, bath and massage oil, moisturizing cream, and lip balms.

## ***FUNCTIONAL FOOD & NUTRACEUTICAL TECHNOLOGIES IN CANADA***

---

- Private label packaging and Custom Processing.
- Product Development
- Research

**COMPANY PROFILE****INFRAREADY PRODUCTS INC.**

850C 56th Street East  
Saskatoon, SK  
Canada S7K 5Y8

Telephone: (306) 242-4950  
Facsimile: (306) 242-4213  
E-mail: [m.pickard@infrareadyproducts.com](mailto:m.pickard@infrareadyproducts.com)  
Website: <http://www.infrareadyproducts.com/>

Mark Pickard  
President

**NATURE OF BUSINESS**

InfraReady Products is a specialty processor of a wide variety of conventional and organic plant derived products. These products are processed using infrared heating technology, which imparts a number of benefits, including inactivation of anti-nutritional factors, decreased cook time, and reduction of microbial content. Products can be processed into flakes, meals and powders and processed grains may be combined into blends for use in a variety of bakery and other food products. InfraReady offers small scale research and toll processing capabilities.

**MAJOR ACHIEVEMENTS**

- In-house HACCP Program
- OCIA Organic Certification
- AIB Superior Rating for Plant Sanitation and Operating Procedures
- Health Canada Industrial Hemp devitilization License
- Kosher Certified

|                               |   |
|-------------------------------|---|
| Sales Volume:                 | n/a   |
| R&D Expenditure:              | n/a   |
| Employees:                    | 23  |
| Facilities:                   | Located in the heart of the Prairies  |
| Ownership:                    | Private   |
| Trade:                        | Exporting   |
| Export destinations:          | <ul style="list-style-type: none"> <li>• Argentina</li> <li>• Trinidad</li> <li>• Mexico</li> <li>• Singapore</li> <li>• United States</li> </ul> |
| Total exports:                | n/a   |
| Percentage of sales exported: | 50 %  |

Key Alliances:

- Product Development Centers
- University Research Facilities
- Food laboratories

**COMPANY BACKGROUND**

InfraReady's facilities are located in the heart of the Prairies, in a region known worldwide for superior crops.

InfraReady's innovative approach bridges the gap between raw products and the food industry manufacturer. Infrared energy is the same type of energy we get naturally from the sun. Applied to select grains and pulses, InfraReady's process results in improved ingredients for food manufacturing. Combining advanced technology, processing experience and commodity knowledge with an appreciation of customer needs, InfraReady is able to supply a unique range of food ingredients.

**CURRENT ACTIVITIES**

InfraReady Products Ltd. recently introduced its latest cereal based food ingredient. Using unique characteristics found in varieties of waxy hull-less barley and infra-red cooking technology a new ingredient is born. Readymate™ possesses superior lipophylic and hydrophilic properties making ideal for a wide range of food processing operations. From ingredient and meat binding to a fat substitute for baking, this ingredient has it all.

Other current activities include:

- Processing and sale of products for the health-food industry.
- Toll processing of plant-derived products for the nutraceutical industry.
- InfraReady recently received approval from Health Canada to use infrared cooking technology to sterilize hempseed for industrial use.
- Custom blending of grain products for the bakery industry.
- Exportation of a variety of precooked legumes.

InfraReady products include:

- Pea Products Line
- Rice Products Line
- Specialty Grains Line
- Oilseed Products Line
- Lentil Products Line
- Grain Products Line
- Blended Products Line
- Bean Products Line



**INSTITUT ROSELL -LALLEMAND**

8480 St. Laurent Boulevard  
Montreal, Quebec  
Canada H2P 2M6

Telephone: (514) 381-5631  
Facsimile: (514) 383-4493  
E-mail: [human@lallemand.com](mailto:human@lallemand.com)

Depuis Anpers, President

John Conway, Regional Sales Manager

Henrik Winther, Business Manager Health Food  
Products Europe/Asia

Jean Lamotte, Director, Customer Service

Patrice Malard, Marketing Director

**NATURE OF ORGANIZATION**

Institut Rosell-Lallemand, a subsidiary of Lallemand inc., specializes in the production of microorganisms, lactic acid bacteria, intended for human and animal nutrition, the dairy and food industries, and for soil fertilization.

**MAJOR ACHIEVEMENTS**

- Institut Rosell-Lallemand has taken the Frost & Sullivan 2002 Food and Beverage Marketing Engineering Award for its Enteric-Coating Technology for probiotic supplement capsules
- Development of a vaccine for the treatment of bovine mastitis
- Production of microbiological cultures for the manufacture of:
  - fermented milks
  - sour cream

- Cheese
- Fermented meats
- Silages
- Legume inoculants
- Probiotics for humans and animals
- Introduction of yogurt into North America
- Improvements in freeze-drying of lactic bacteria
- Extensive research related to lactic and nitrogen fixing bacteria
- Shelf Stable Technology for dried cultures, microencapsulation and enteric coating
- Mineral enriched yeast and bacteria

Institut Rosell-Lallemand exports approximately 90% of its products, to 30 different countries. Distribution is done directly, as well as through other agencies.

**COMPANY PROFILE**

Sales: n/a  
Volume:

R&D: n/a  
Expenditure:

Employees: 100 employees (total)  
7 in R&D, 7 quality control specialists, and the remainder in sales, marketing, and production

Facilities: Fermenters, centrifuges, filtration systems, freeze dryers and laboratories.  
40, 000 sq. ft. facility for production and research

Ownership: Private

Trade: Exporting

### Key Alliances:

- INRA, France
- ITG, Institut Technique du Gruyère
- Bio-Inova
- Agriculture and Agri-Food Canada
- National Research Council of Canada
- Food Research and Development Centre, St-Hyacinthe
- Institut Armand Frappier - INRS
- Instituto Rosell de Lactologie, Spain
- Laval University
- Acadia University
- Hospital for Sick Children, Toronto
- Manufacturers of bacterial cultures
- Several marketing and distributing agents
- Several food processing companies

### COMPANY BACKGROUND

Institut Rosell was founded in 1932 and incorporated in 1934. It was originally located at Oka Agricultural Institute. In 1978, Institut Rosell's laboratories were moved to the Montreal facilities, where they have operated ever since.

Institut Rosell-Lallemand is a privately owned company and has undergone extensive growth over the last few years. As early as 1940, Institut Rosell licensed-out to two American companies to develop sales for Institut Rosell's lactic cultures and production of new dairy products, including yogurt in particular. Currently, it is part of Lallemand Inc., a world-renowned producer of yeast and bacteria for bakery, oenology, and animal & human nutrition.

Institut Rosell-Lallemand has contracted agencies for the sales of its products, primarily in France, Australia, Korea, Japan, Ukraine, Poland, and the Czech Republic. In other countries, Institut Rosell-Lallemand supplies distributors and wholesalers directly.

### CURRENT ACTIVITIES

Institut Rosell-Lallemand is active in the sale, production, research and quality control of numerous products and processes. The main cultures that are produced can be classified as follows:

#### Probiotic Lactic Bacteria:

These are used as prophylactic and therapeutic agents and as food supplements for human and animal nutrition. The main strains produced for these purposes are:

- *Lactobacillus acidophilus*
- *Lactobacillus helveticus*
- *Lactobacillus rhamnosus*
- *Lactobacillus delbruekii* subsp. *bulgaricus*
- *Lactobacillus plantarum*
- *Lactobacillus fermentum*
- *Enterococcus faecium*
- *Streptococcus salivarius* subsp. *thermophilus*
- *Bifidobacterium bifidum*
- *Bifidobacterium breve*
- *Bifidobacterium infantis*
- *Bifidobacterium longum*

#### Yeasts:

- Mineral Enriched Yeast:
    - Zinc
    - Chromium
    - Selenium
    - Copper
    - Magnesium
    - Molybdenum
    - RDA-500
  - *Saccharomyces boulardii*
- Derived products:
- Extracts
  - Glucans
  - Autolysates

#### Cultures for the Dairy Industry:

- Yogurt cultures
- Kefir cultures

- Acidophilus milk cultures
- Mesophilic lactic cultures
- Thermophilic lactic cultures
- Propionic bacteria
- Ripening bacteria
- Cheese molds
- Lactic acidia
- Yeast

Cultures for the Food and Feed Industry:

- Cultures for the fermentation of:
  - Sausage
  - Sauerkraut
  - Kimchi
  - Silage

### **DESIRED INVESTMENT PARTNERSHIPS**

Institut Rosell-Lallemand is seeking companies in human and animal nutrition businesses who are interested in developing partnerships to explore specific research applications for yeast, bacteria, oligosaccharides and mineral enriched yeast. They also seek partners for marketing and research contracts.

**LALLEMAND INC.**

1620 rue Préfontaine  
Montreal, QC  
Canada H1W 2N8

Telephone: (514) 522-2133  
Facsimile: (514) 522-2884  
E-mail: none  
Website: <http://www.lallemand.com>

See also Institut Rosell-Lallemand

**NATURE OF BUSINESS**

Lallemand, together with its subsidiaries, offers a unique range of bacteria, yeast extracts, mineral enriched yeasts and fermentation nutrient ingredients. It produces a wide range of organic acid salts for the food and pharmaceutical industries, as well as a wide range of micro-organisms used in the production of naturally fermented foods and for agricultural and probiotic uses. Lallemand is also a leading supplier of baker's yeast in Canada. Due to its original focus on specialized yeast strains, Lallemand has become the largest producer and marketer of specialty strains for wine and distilled products in the world. Product development is supported by a strong in-house research and development division as well as joint projects varying from production control to genetic engineering.

**MAJOR ACHIEVEMENTS**

- In early 1997, Lallemand acquired Primalco Biotech Specialty Yeast, based in Finland, from Alko Limited, Finland. Products acquired included selenium and chromium enriched yeast, and Fibrosel, a defined yeast extract.
- Obtained a patent on the "In Ovo" concurrent use of an antibiotic and microbial treatment to diminish Salmonellae populations in avians

**COMPANY PROFILE**

Sales Volume: \$250 M

R&D Expenditure: 2% of gross sales

Employees: 500 employees worldwide

Facilities: R&D laboratory and pilot plant  
Laboratory at the Biotechnology Research Institute of the NRC in Montreal  
Laboratory in Toulouse, France

Ownership: Private

**Key Alliances:**

- Laval University
- McGill University
- The Research Centers of Agriculture Canada
- Biotechnology Research Institute, Montreal
- National Institute for Agricultural Research (France)
- Chemical Engineering Institute (France)
- Berlin Technical University (Germany)
- USDA (Georgia, U.S.A.)
- Kansas State University (Kansas, U.S.A.)
- Michigan State University (Michigan, U.S.A.)
- Technical Institute of Gruyere
- Bio-Inova
- Institute Armand Frappier – INRS
- Acadia University
- Hospital for Sick Children ,Toronto

**COMPANY BACKGROUND**

The Lallemand plant has been in operation since 1915. A company originally specializing in vegetable shortenings for the Canadian baking trade, Lallemand has evolved to its current position as a world leader in the production and marketing of specialty yeasts. In 1983, Lallemand established a permanent base in Europe with a warehouse, sales office and laboratory

in France. In 1985, the company acquired Malone Oil, which produced pan oils and trough greases. In 1986, it acquired a supplier of propionates that also produced salts of other organic acids, which had applications in the food and drug markets. A new company, Macco Organiques Inc. was created to explore these applications. Lallemand continued to acquire complementary facilities and companies such as Danstar production facilities in Denmark, Equilait/Equipharm in France, American Yeast Sales Company, and the American Yeast Corp. plant in Baltimore, Maryland. In 1993, Lallemand acquired Quali Tech's fermentation business in Minneapolis, Minnesota. Since 1996, it procured additional fermentation capacity through the acquisition of production facilities located in Estonia, Austria and Germany. Further, in 1997, Lallemand acquired Primalco Biotech Specialty Yeast of Alko in Finland. Lallemand also acquired Institut Rosell in 1998.

### **COLLABORATIVE ARRANGEMENTS SOUGHT**

Lallemand Inc. is seeking companies in either or both the nutraceutical or animal businesses who are interested in developing partnerships to explore specific research applications for yeast, bacteria, oligosaccharides and mineral enriched yeast.

Inquiries pertaining to product distribution are welcome.

### **CURRENT ACTIVITIES**

The objectives of Lallemand's research efforts are:

- to stay abreast of the developments in the field of biotechnology, microbiology and engineering
- to improve the quality of its products
- to continuously improve the productivity of its processes

Current research projects include:

- Partnering with the USDA in a major project to investigate methods that utilize various purified strains of yeast and their potential to reduce the incidence of Salmonella, Clostridium and Campylobacter in poultry carcasses
- Screening for strains of yeast that can organically bind the highest levels of trace minerals
- The development of production methods for mineral-binding yeast strains
- Investigation of the methodology that provides the maximum longevity of various lactic acid bacteria
- The development of yeast for frozen dough
- Refining its yeast identification method by DNA fingerprinting

Institut Rosell, a subsidiary, is actively involved in the study of lactic acid bacteria for their bacteriostatic properties against human pathogens.

## **LASSONDE INDUSTRIES INC.**

755 Principale Street  
Rougemont, Quebec  
Canada J0L 1M0

Telephone: (450) 469-4926  
Facsimile: (450) 469-1366  
E-mail: info@lassonde.com  
Website: www.lassonde.com

Pierre-Paul Lassonde  
Chairman of the Board and  
Chief Executive Officer

### **NATURE OF BUSINESS**

Lassonde Industries Inc. is a Canadian leader in the development, manufacture, and marketing of an innovative and distinctive range of fruit and vegetable juices and drinks as well as certain specialty food products such as canned corn-on-the-cob for foreign markets, fondue bouillons and sauces, meat marinades, barbecue sauces, and baked beans.

The Company forges partnerships and grants brand licensing agreements with indigenous companies in Asia and North Africa in order to promote its expertise, its technology, and its trademarks.

The mission of Lassonde Industries Inc. is to be a global leader in developing, producing, and marketing a distinctive, innovative range of fruit and vegetable juices and drinks as well as certain specialty food products and other products compatible with the production activities of the Lassonde Group.

### **MAJOR ACHIEVEMENTS**

- Launching of the new Oasis Premium Collection flavours as well as the brand new fruit juice cocktails Oasis Health Break. Lassonde is Canada's first juice manufacturer to develop nutrient-rich products with a specified function in nutrition. (1995)
- Oasis Premium Collection was the winner in the Beverages Category and All-Canadian Products Category (1996)
- Launching of Oasis Health Break cocktails in the 1.89 litre size (1997)
- Lassonde is Canada's first juice manufacturer to introduce orange juice with calcium (1998)
- Lassonde entered into a major licensing agreement with Sunkist Growers, Inc. of California, to produce and market ready-to-drink fruit juices and fruit drinks under the Sunkist brand (2001)
- Lassonde acquired a part of assets of Golden Town Apple Products Ltd. Located near Thornbury, Ontario, the company specializes in processing apples, especially apple-juice production and apple peeling for apple by-products (2002)
- Lassonde has announced that it has concluded a licensing agreement with Sun-Maid Growers of California, to produce and market an all-new line of fruit juices under the Sun-Maid brand throughout Canada (2003)
- Rewarded seven (7) times by the Canadian Grand Prix new Products Awards (C.C.G.D.) for superior quality product innovation (last 10 years)

### **COMPANY PROFILE**

Sales Volume: > \$ 247M  
R&D Expenditure:  
Employees: 750

## ***FUNCTIONAL FOOD & NUTRACEUTICAL TECHNOLOGIES IN CANADA***

---

Facilities: R&D laboratory and pilot plant, 4 production plants in Quebec, 2 production plants in Ontario, 1 production plant in Nova Scotia

Ownership: Public - The corporation shares are listed on the Toronto Stock Exchange (ticker symbol LAS.A)

Trade: Exporting

Export destinations:

Total exports: \$19,3 Million

Percentage of sales exported: 7.8 %

Key Alliances:

- Food Research and Development Centre
- Laval University
- Different suppliers

### **COMPANY BACKGROUND**

Founded by Aristide Lassonde in 1918, the company operated mainly as a canning facility for four decades. Then, in 1959, Willie Lassonde (father of Pierre-Paul Lassonde, current chairman of Lassonde Industries Inc. Board of Directors) decided to diversify by adding the production of apple juice to vegetable operations. This change of direction, this bold vision, was passed on through the generations, inspiring Lassonde's love for innovation.

The Corporation continued to focus on innovation by introducing products in the functional food product sector that are truly responding to avant garde trends. Examples of this are the new line of NUTRITION'L drinks and bars, and the FRUITÉ AND OASIS Plus products with calcium. In addition, the arrival of Canton's Choco Fondue, the only peanut-free fondue, in a choice of dark or milk chocolate min-squares fondues in the market was successful. Consumers find the packaging of these new products appealing.

The Company has two wholly owned subsidiaries, A. Lassonde Inc. and Produits Ronald Inc., and a company subject to significant influence: Phytoflora Lassonde S.A.

### **CURRENT ACTIVITIES**

Lassonde sells its products in Canada, the New England states, Europe, Asia, and North Africa. The greater part of its sales are to food retailers and wholesalers, while restaurants, hospitals, hotels, schools account for the remainder.

### **DESIRED INVESTMENT PARTNERSHIPS**

Lassonde seeks alliances with companies for joint development of innovative products and technologies, distribution of new products and technology transfer.

## **LIFEMAX NATURAL FOODS DISTRIBUTION INC.**

1773 Bayly Street  
Pickering, Ontario  
Canada L1W 2Y7

Telephone: (905) 831-5433  
Facsimile: (905) 831-4333  
E-mail: lifemax@istar.ca  
Website: none

Mr. Robert Sahota  
President

### **NATURE OF BUSINESS**

Lifemax Natural Foods Distribution Inc. specializes in the development, production, and marketing of functional foods and nutraceuticals. The company has developed unique expertise in the development and manufacture of innovative food products from rice, potato and canola. The company offers health conscious consumers and those with special dietary needs- i.e., vegetarians and people on restricted diets- an extensive variety of quality, natural food products.

### **MAJOR ACHIEVEMENTS**

- Developed an egg-less mayonnaise that has the taste and texture of mayonnaise with no cholesterol and 33% less fat
- First company to develop a potato pasta
- In house brands such as Nutrimax gluten-free soups, Lifesource all natural no sugar-added jams, and Lifesource juices catering to those consumers in need for high quality specialty items
- Developed a line of high-quality, great tasting soynut snacks

### **COMPANY PROFILE**

Sales Volume: \$ < 10 M

R&D Expenditure: \$ > 1 M

Employees: 10+

Facilities: Pickering: 50,000 sq. ft. offices and warehouse  
Buffalo(USA): 50,000 sq. ft. warehouse

Ownership: Private

Key Alliances:

- Canadian Analytical Laboratories
- Canadian Health Food Association (CHFA)
- Canadian Diabetes Association
- Local Celiac Chapters

### **COMPANY BACKGROUND**

Lifemax Natural Foods Distribution Inc. is lead by Mr. Robert Sahota and Jagroop Sahota who have grown up as "children of the health food industry". Their education and valuable experience throughout the years enables them and the Lifemax team to focus on the development of functional foods and nutraceuticals. Continuing to offer high-quality specialty products is the goal at Lifemax. There is a great understanding and commitment to help those who are in need of these products. Lifemax feels obligated to continue to make health awareness a priority as we go further into the new millennium.

In the past few years, Lifemax Natural Foods has successfully developed and launched a number of product lines that are already market leaders. The demand for these products extends past the Canadian borders to the United States and other parts of the world.



## **CURRENT ACTIVITIES**

Lifemax Natural Foods manufactures and/or distributes a wide variety of functional foods. Some of the unique products the company currently has on the market are:

- *Lifesoys*: soy-based food products- organic & gluten-free soy sauces, vege-burgers, and soy snacks
- *Pastato*: potato pasta
- *Pastariso*: organic rice pasta
- *Canoline*: canola-based products- oil, egg-less mayonnaise, low saturated fat margarine
- *Nutrimax*: Gluten-free soups, bouillon soup cubes and mayonnaise
- *Lifeforce*: No-sugar-added jams and juices; nutrient rich, naturally fortified rice cakes

The company is continuing to develop new products. These include:

- New varieties of fat and gluten-free soups
- Gluten-free pasta sauces
- Organic and low-fat cheese
- Cranberry-based beverage formulated to prevent urinary tract infections

## **COLLABORATIVE ARRANGEMENTS SOUGHT**

Lifemax seeks partnerships with importers or distributors to assist in the worldwide export of its products. The company also invites offers from investors interested in financing a functional food company with a number of established product lines.

***NUTRI-LOC CORPORATION (formerly Altex Processing Inc.)***

Hong Kong Bank Building  
1500- 885 W.Georgia St.  
Vancouver, BC  
V6C 3E8 Canada

Telephone: (877) 794-7878  
Facsimile: (604) 648-9670  
E-mail: [tgordon@nutriloc.com](mailto:tgordon@nutriloc.com)  
Website: <http://www.nutriloc.com>

Dr. Tom Gordon  
Chairman & CEO

Andrew Small  
President & COO

**NATURE OF BUSINESS**

Manufacturer of shelf stable , high nutritive value dehydrated vegetables, herbs and fruits. We are focused on producing certified organic whole, sliced and powdered product and are QAI certified and Kosher. Nutri-loc Corp. has a proprietary process superior to freeze dried called Nutri-Loc <sup>tm</sup> which preserves the color, flavor and nutrient value of the fresh botanical. Nutri-Loc Corp. is also a Manufacturer of standardized liquid and powdered extracts and specializes in certified organic botanical ingredients. The extract plant also does encapsulating, bottling and labeling. Nutri-Loc Corp. has an oil extraction division that utilizes supercritical extraction technology to produce rare botanical and marine oil isolates and anti-oxidants. Servicing the food, functional food, beverage and nutraceutical industries.

Nutri-Loc Corp. has its own line of certified organic standardized extract formulas called Freshwoods Farm. The company offers custom manufacturing and private label services.

**MAJOR ACHIEVEMENTS**

- Purchased \$4 M worth of vacuum microwave equipment from CA and moved and installed into warehouse Sept 02
- Opened dehydration facility in Vancouver January 2003
- QAI and Kosher certification in July 2003

**COMPANY PROFILE**

Sales Volume: \$500,000-\$1 million

R&D Expenditure: \$ 0.1 M

Employees: 6

Facilities: 5000sq ft dehydration factory and 6,000 sq ft extract manufacturing plant

Trade: Exporting

Ownership: Private

Key Alliances:

- High Pressure Extraction Ltd.
- Agriculture and Agri-Food Canada (Summerland, BC)
- Canadian Phytopharmaceuticals Corp.
- English Bay Batter Co.
- Washington State University- Food Sciences Dept.

## **COMPANY BACKGROUND**

Established in 2000, the company began marketing its liquid and powder extracts to nutraceutical and food industries as well as the Freshwoods Farm retail line of certified organic supplements.

Through research and development, the company is actively extending its line of herbal ingredients. The company is involved in research collaborations with the University College of the Cariboo and the Pacific Agri-Food Research Centre. Here research is conducted on processing methods and new applications.

## **CURRENT ACTIVITIES**

- Marketing in the U.S. of bulk standardized liquid and powdered extracts both in the dietary supplement industry and the functional food industry
- Production of Nutri-Loc shelf stable high nutritive value vegetables, berries and fruits for the food industry.
- Distribution and marketing of a no chemical, no alcohol, all botanical mouthrinse

## **COLLABORATIVE ARRANGEMENTS SOUGHT**

- Distribution agreements for its products in Pacific Northwest Region of US and foreign markets
- Manufacturing agreements for companies wishing to market and distribute their own herbal products
- Joint product development agreements to adopt our proprietary vacuum microwave technology.

## **OCEAN NUTRITION CANADA LTD.**

757 Bedford Highway  
Bedford, Nova Scotia  
Canada B4A 3Z7

Telephone: (902) 457-2399  
Facsimile: (902) 445-2220  
E-mail: rorr@ocean-nutrition.com  
Website: <http://www.ocean-nutrition.com>

Mr. Robert Orr  
President

### **NATURE OF BUSINESS**

Ocean Nutrition Canada Ltd. (ONC) is a rapidly expanding life science company built around marine biotechnology and proprietary technologies creating "Natural Health from the Sea".

ONC is the world's leading innovator, researcher, and vertically integrated provider of quality marine-based nutraceuticals and functional food ingredients. ONC's vertical integration strategy begins with a readily available, reliable and sustainable source of quality raw materials through its parent company Clearwater Fine Foods Inc. – North America's leading seafood harvester and exporter.

ONC supplies the highest quality marine-based dietary supplements and functional food ingredients from its GMP manufacturing facilities in Nova Scotia Canada. ONC supplies both ingredients and brand product to market leaders in all of its primary markets, the United States, Europe and Asia.

ONC operates the largest and most sophisticated privately held R & D facility for marine natural products in Canada. ONC's research and development team is focused on:

- The discovery of new marine natural products & new sources of known nutrient compounds
- The development of proprietary marine-derived nutritional ingredients
- Clinical validation of the efficacy and safety of all products
- Development of proprietary extraction, processing and delivery methods

### **MAJOR ACHIEVEMENTS**

- Largest producer of concentrated omega-3 products in North America
- The first to obtain self-affirmed GRAS (generally recognized as safe) status on an omega-3 concentrates (30%, 50%, 60%)
- Three (3) novel patented compounds developed in our R&D facility
- Six (6) novel patents pending compounds developed in our R&D facility
- Pharmaceutical level cGMP and HACCP certification for our manufacturing, encapsulation and packaging facilities
- Drug Identification Number (DIN) for ONC's omega-3 concentrates
- Compliant with new Council for Responsible Nutrition (CRN) monograph for long chain omega-3 fatty acids
- Honored as one of Canada's leading innovative companies by Industry Canada and the National Research Council (NRC)
- Key alliances in place with international research, dietary supplement, food and pharmaceutical organizations

## **COMPANY PROFILE**

|                               |   |
|-------------------------------|---|
| Sales Volume:                 | n/a   |
| R&D Expenditure:              | n/a   |
| Employees:                    | 200 (38 Research Staff)   |
| Facilities:                   | ~Four cGMP manufacturing facilities totaling over 75,000 sq.ft.<br>~12,000 sq.ft. research facility<br>~Two pilot plant operations<br>~Sales & administration office located in Bedford, Nova Scotia  |
| Ownership:                    | Private   |
| Trade:                        | Exporting   |
| Export destinations:          | North America, Europe, Asia   |
| Percentage of sales exported: | 96%   |
| Key Alliances:                | <ul style="list-style-type: none"><li>• National Research Council of Canada Institute for Marine Biosciences</li><li>• Dalhousie University</li><li>• Southwest Research Institute</li><li>• Innovacorp</li><li>• Clearwater Fine Foods Inc.</li><li>• Qingdao Ocean University</li></ul> |

## **COMPANY BACKGROUND**

Established in 1997 following the purchase of Laer Products Inc., Ocean Nutrition Canada is a wholly-owned subsidiary of Clearwater Fine Foods Inc., one of the largest seafood, harvesters, processors and exporters in Canada. Ocean Nutrition Canada has direct access to the cold, deep waters of the North Atlantic, long known for its high quality fish and marine life. ONC is the largest producer of long chain omega-3 fatty acids from fish oil in North America. The company employs unique processing technology and strict lab measures to ensure removal of any contaminants and heavy metals such as PCBs or mercury.

## **CURRENT ACTIVITIES**

1. Research and Development
  - The primary focus of our research and development team is the discovery, identification and creation of unique natural health products and functional food ingredients from marine sources.
  - Ocean Nutrition Canada Ltd. is also researching and pursuing the development of proprietary extraction, processing, manufacturing and delivery systems with the goal of ensuring the consumer receives the highest quality ingredients with proven efficacy, safety and value from these unique marine-based organisms.
2. Dietary Supplements
  - Supply of marine-based nutritional products through private label strategic partners
  - In-house capabilities to supply bulk ingredients and/or fully finished bottled product
  - Products Description:

- ~Complete range of standard and concentrated formats of fully refined omega-3 fish oils, available in both bulk oil, softgel capsules and bottled finished product
- ~Blood pressure lowering product derived from fish protein
- ~Immune modulating product derived from marine algal extract

### 3. Functional Food Ingredients

- Proprietary and patent protected microcapsulation technology that can fortify foods with minimal impact on shelf life, flavour and cost
- ONC is active in supplying ingredients to both human and pet food companies worldwide

### 4. Manufacturing Capabilities

- Patent protected delivery systems for nutritional ingredients
- Microencapsulation for unstable nutrients such as concentrated Omega-3s
- Other technologies that enable delivery of more bio-available lipid-soluble nutrients
- Unique Omega-3 concentration facility utilizing proprietary process for concentration and purification of omega-3s. ONC is the world's largest Omega-3 fish oil concentrate manufacturer.
- Encapsulating and bottling in-house
- Two Pilot Plants with capability to develop new extraction and manufacturing methods

## **DESIRED INVESTMENT PARTNERSHIPS**

Ocean Nutrition Canada is seeking collaborative arrangements with prospective strategic partners. Ocean Nutrition is actively seeking companies or research groups with unique products or technologies that fit with ONC's business strategy, for commercialization, acquisition, or licensing. In addition, ONC seeks customers who are organizations with global distribution capabilities preferably possessing recognized brands in the following sectors:

- Dietary supplements – looking for ingredients or finished product
- Traditional food brand marketers
- Animal food manufacturers in companion animal (dogs and cats) and food animal (cows/chickens) sectors

## **OCEAN PRODUCE INTERNATIONAL**

P.O. Box 995  
2882 Sandy Point Rd.  
Shelburne, Nova Scotia  
Canada B0T 1W0

Telephone: (902) 875-4444  
Toll Free 1 (800) 565-8773  
Facsimile: (902) 875-4445  
(902) 875-1892

E-mail: [sales@oceanproduce.com](mailto:sales@oceanproduce.com)  
[Wmagee@oceanproduce.com](mailto:Wmagee@oceanproduce.com)  
[ecayer@oceanproduce.com](mailto:ecayer@oceanproduce.com)

Website: <http://www.oceanproduce.com>  
<http://www.kainic.ca>

Willa Magee  
President

### **NATURE OF BUSINESS**

Ocean Produce International (OPI) is a new world class company devoted to applied research and commercialization of macro algal production. Developer of green house technologies for marine plant production, OPI refers to its culturing techniques as “mariponics” and to its raw materials as “sea plants”.

In addition to its macro algal production, OPI also produces unique chemicals through strategic alliances including an antisensitivity compound used in personal care products and the world's purest natural form of an excitatory amino acid called kainic acid and a derivative called dihydrokainic acid – both used in neurological research.

### **MAJOR ACHIEVEMENTS**

- Creation of specialty functional foods
- Selection and recognition as the producer of Canada's Best New Vegetable - Sea Parsley™ - Winner of the 1998 Canadian Grand Prix – Produce
- Winner of Gold Medals at Carnegie Hall in 1997 and 1998
- Selection by a leading panel of culinary experts and chefs - the American Tasting Institute - as one of North America's top 100 food products.
- Establishment of exclusive global production control over Sea Parsley™, a natural plant mutation sold powdered, as an extract, capsule and functional food. Sea Parsley™ is a new strain grown only by OPI. Sea Parsley™ is also the source of an interesting array of over 80 identified nutrients with potential therapeutic and nutritional importance.
- Opika-1™, a natural plant mutation sold and powdered to extract kainic acid, a neurological research compound now used by more than 200 leading labs in some 35 countries.

### **COMPANY PROFILE**

|                  |  |
|------------------|--|
| Sales Volume:    | \$ 1 M   |
| R&D Expenditure: | \$ 0.5 M   |
| Employees:       | 5  |
| Facilities:      | Production, manufacturing, processing and laboratories |
| Ownership:       | Private  |
| Trade:           | Exporting  |

## ***FUNCTIONAL FOOD & NUTRACEUTICAL TECHNOLOGIES IN CANADA***

---

- Export destinations:
- Finland
  - Sweden
  - Norway
  - Denmark
  - Germany
  - Austria
  - Poland
  - Hungary
  - Czech Republic
  - Ukraine
  - Greece
  - Turkey
  - Lebanon
  - France
  - England
  - Italy
  - Netherlands
  - Switzerland
  - Belgium
  - Spain
  - Portugal
  - USA
  - China
  - Japan
  - Taiwan
  - Korea
  - New Zealand
  - Australia
  - Brazil
  - Mexico
  - Chile
  - Puerto Rico
  - Croatia

Total exports: \$700,000  
Percentage of sales exported: 70 %

### Key Alliances:

- Diagnostic Chemicals Limited
- National Research Council of Canada's Institute of Marine Biosciences
- Collaborative Laboratories Inc.
- PEI Food Technology Center

### **COMPANY BACKGROUND**

Ocean Produce International (OPI) was established in 1995 to cultivate unique sea vegetables for institutional and retail markets and to develop associated culturing technologies. OPI is committed to ISO9000 and 14000 accreditation and this will be achieved at the earliest possible date. OPI completed HACCP certification in 1998 and is proceeding with organic certification.

OPI's land-based marine culturing techniques are supported by a diverse scientific and technical research team and an accomplished business and technology group. OPI offers product development and marketing services and new and unique natural marine plant food products, nutraceuticals, medical foods, pharmaceuticals and fine chemicals.

### **CURRENT ACTIVITIES**

OPI specializes in the cultivation, processing, research and development of algae and the creation of functional foods, nutraceuticals, cosmeceuticals, pharmaceuticals and fine chemicals. Related activities include:

- Scientific and technological research
- Marketing and sales
- Product identification and development
- Technology development and transfer
- Quality control and process management
- Business training and consulting
- Processing and packaging
- Biomaterial screening
- Genetic material capture and creation

### **DESIRED INVESTMENT PARTNERSHIPS**

Companies interested in joint ventures to develop products or pursue contract opportunities, particularly in the development of products in the following fields:

- Lipids and Lyposomes



- Functional and Medical Foods
- Fluorescent Pigments
- Excitatory Amino Acids
- Cosmetics and Personal Care Products
- Natural Product Screening

**OMEGA BIOTECH CORP.**

Suite 3, 4476 Markham St.  
 Vancouver Island Technology Park  
 Victoria, BC V8Z 7XZ  
 Telephone: 250-881-8126  
 Facsimile: 250-881-8136  
 E-mail: general@omegabiotech.com  
 Website: <http://www.omegabiotech.com>

Rick Weatherhead  
 Director, Business Development

**NATURE OF ORGANIZATION**

Omega Biotech is an antioxidant manufacturer focusing on grape seed extract in bulk and retail capsule form. Antioxidants are bio-active phytochemicals (from plants), with significant application to anti-aging and disease prevention, a growing concern of the approximately eighty million baby-boomers in North America.

Omega Biotech is an acknowledged leader in the research and development of specialized processes needed to extract and purify natural substances for the alternative health care industry.

**MAJOR ACHIEVEMENTS**

- Developed new Beverage quality product ideal for wine , clear juices & bottled water
- Diversified into antioxidant trans-dermal creams
- Has a line of retail encapsulated antioxidant oral products.

**ORGANIZATIONAL PROFILE**

Sales Volume: \$1 - \$10 Million

|                               |   |
|-------------------------------|---|
| R&D Expenditure:              | <\$50,000                                   |
| Employees:                    | 12  |
| Facilities:                   | Manufacturing Plant & Offices               |
| Ownership:                    | Private                                     |
| Trade:                        | Exporting                                   |
| Total exports:                | \$50,001 - \$ 1 Million                     |
| Percentage of sales exported: | 50 – 74.9 %                                 |
| Export destinations:          | USA, Japan, Korea, South Africa and Germany |

Key Alliances:

**ORGANIZATIONAL BACKGROUND**

Omega Biotech Corporation is a private, Canadian-owned company based on Vancouver Island, British Columbia. Established in 1991, its primary aim was to develop and extract phyto-nutrients from botanicals - including oligomeric proanthocyanidins (OPC's) from grape seeds - for use in the nutraceutical, food and beverage and personal care sectors.

Research and development efforts were made in-house, and in cooperation with the University of Victoria, the University of British Columbia, and research teams from the National Research Council and the Pacific Forestry Center. Omega Biotech's board of directors is Canadian and includes:

- Director: Dr. David Baker
- President: Murray M. Persicke
- General Manager: Joji Ishikawa
- Director of Business Development: Rick Weatherhead

**CURRENT ACTIVITIES**

Omega Biotech manufacturers high quality, potent antioxidant extract from grape seeds from Mt. St Helens area of Washington State, USA. The company also manufacturers antioxidant network transdermal creams. The company has a retail line of antioxidant capsules.

Products include:

- Omegavin™, a grape seed extract produced from white grapes grown in an area of the US Pacific North West where the soil is unusually rich in nutrients. The seeds are separated and dried prior to the wine making process thereby preserving their powerful antioxidant properties.
- Protovin™, one of the leading grape seed extracts in the industry manufactured using strict quality control standards.
- Omage Anti-aging Cream for skin firming, brightening and repair of minor skin damage by sun or aging. Over 30 antioxidants plus essential and botanical oils.

### **DESIRED INVESTMENT PARTNERSHIPS**

Omega will continue to form strategic alliances with formulators, manufacturers and raw material suppliers to consolidate its market presence in this sector. Its growing customer base is looking to Omega for other high quality natural extracts, backed by scientific analysis.

The company is seeking partnerships with laboratory and research organizations, distributors of nutraceuticals, functional foods, dietary supplements and cosmaceuticals as well as partners for recycling of waste grape seed extract and pomace and marc from wineries.

## **PARRHEIM FOODS**

817 – 48<sup>th</sup> Street East  
Saskatoon, Saskatchewan  
Canada S7K 0X5

Telephone: (306) 931-1655  
Facsimile: (306) 931-2664  
E-mail: [pheim@parrheimfoods.com](mailto:pheim@parrheimfoods.com)  
Website: [www.parrheimfoods.com](http://www.parrheimfoods.com)  
Mr. Glenn O'Hara  
General Manager

### **NATURE OF BUSINESS**

Parrheim Foods specializes in the production of value-added functional food products from legumes and cereals. The company's products are used as additives by the food and animal feed industries to enhance the functional and/or nutritive value of their products.

### **MAJOR ACHIEVEMENTS**

- Establishment of Global Broker and Distributor Network
- Development of internal research environment focused on technology development and increasing product lines
- Acquisition of Wet Mill in 1997
- Expansion of grain fractionation from processing yellow field peas to include other legumes plus cereals

### **COMPANY PROFILE**

Sales Volume: \$ 5 - 10 M  
R&D \$ 0.1 M  
Expenditure:

Employees: 25  
Facilities: Dry Mill (Saskatoon)  
Ownership: Parrish & Heimbecker (Private)  
Trade: Exporting  
Total exports: \$1 - \$10 Million  
Percentage of sales exported: 25-49.9%

#### Key Alliances:

- University of Saskatchewan
- University of Toronto

### **COMPANY BACKGROUND**

Parrheim Foods is a division of Parrish and Heimbecker. The company commenced operations in 1989 following the acquisition of a dry mill in Saskatoon, Saskatchewan. The company began by processing yellow field peas to yield protein, starch and fibre products. Since then, the company's processing capabilities have expanded to include other legumes as well as cereals. The purchase of a wet mill in 1997 further increased the company's production capacity and expanded their product lines.

Parrheim Foods presently markets its products to the food, animal feed and industrial markets in North America, Europe and Asia.

### **CURRENT ACTIVITIES**

Parrheim Foods produces a variety of products through fractionation and classification.

The products currently marketed are:

- Starch
- Protein
- Fiber
- Flour

## ***FUNCTIONAL FOOD & NUTRACEUTICAL TECHNOLOGIES IN CANADA***

---

- Functional Foods
- Nutraceuticals

The current products developed are:

- Barley beta-glucan
- Starch Blocker
- Texturized Vegetable protein

### ***DESIRED INVESTMENT***

### ***PARTNERSHIPS***

Parrheim Foods is open to collaborative arrangements for joint technology development and marketing.

## **PURESOURCE NATURAL PRODUCTS**

7018 Hwy 24 South  
Guelph, ON  
Canada N1H 6J4

Telephone: (519) 837-2140  
Toll Free: (800) 265-7245 ext. 225  
Facsimile: (519) 837-1584  
Email: [matt.lebeau@puresource.ca](mailto:matt.lebeau@puresource.ca)  
Website: <http://www.puresource.ca>  
<http://www.herbalselect.com>  
<http://www.realgreen.ca>  
<http://www.simplyclean.ca>  
<http://www.alpheaca>

Matt LeBeau - Sale Manager

### **NATURE OF BUSINESS**

PureSource, located in Guelph, Ontario, is a full service natural products distributor/manufacturer supplying retailers from British Columbia to Newfoundland with regular product delivery and natural product category management support. We also sell to Mexico, Europe, Sweden, USA and China.

PureSource has an inventory of over 6000 natural product and represents more than 200 product lines of manufacturers from around the world. Puresource is the manufacturer of these leading natural product brands: Herbal Select – herbal supplements, Purely Bulk – nutritional foods, Simply Clean – environmentally responsible household cleaning products, In Your Face – natural snacks and The Real Organic Bars (Real Berry, Real Green, Real Tropical), Alpheaca – PMS and Menopause formulas, Omega-Life – flax oil margarine with no trans fat or cholesterol, Just Juice – not from concentrate organic juice line.

### **MAJOR ACHIEVEMENTS**

- PureSource is the first Canadian natural products distributor to achieve ISO 9000 certification.
- PureSource has been recognized by Profit magazine as one of the fastest growing Canadian companies for 1997, 1998, 1999 (short-listed) and 2000.
- PureSource is the founding member of the Natural Health Products Technology Cluster which includes industry members from across Ontario.
- Opened their western warehouse in 2003 to provide superior service to the west.

### **COMPANY PROFILE**

|                               |   |
|-------------------------------|---|
| Sales Volume:                 | 50 million  |
| R&D Expenditure:              | < 2.5%  |
| Employees:                    | 125   |
| Facilities:                   | 45 000 sq. ft (distribution centre)<br>7,500 sq. ft. (production facility)<br>20 000 sq ft- calgary |
| Ownership:                    | Private   |
| Trade:                        | Exporting   |
| Export destinations:          | USA, Britain,<br>Sweden, Austrailia Mexico  |
| Total exports:                | Greater than \$500,000  |
| Percentage of sales exported: | < 2.5%  |

#### Key Alliances:

- University of Guelph, Human Nutraceutical Research Unit
- National Foundation for Hepatitis-C

- Bioriginal Food and Science Corporation
- Now Foods Inc.
- The Herb Works

### **COMPANY BACKGROUND**

PureSource was founded in 1989 to fill a need for better distribution of natural products to Canadian retail outlets. Their mission is to market innovative natural products that optimise health and wellness. The company will accomplish its mission through a vigorous commitment to quality and value in its products and services. Success is measured by superior customer satisfaction, market leadership and continued growth and development of the company's employees, customers and suppliers. Since its inception, the company has been actively promoting and creating the demand for natural health products while improving consumer access to these products.

PureSource is a member of the Canadian Health Food Association and the Canadian Association of Chain Drug Stores.

### **CURRENT ACTIVITIES**

PureSource selection of products include:

- Natural body care products
- Special dietary foods
- Aromatherapy
- Homeopathic Remedies
- Herbal Remedies
- Herbal Teas
- Organic grain beverages and juices
- Vitamins
- Natural and Organic Foods
- Natural and Organic Snacks
- Books & Literature

Distribution takes place from our main facility in Guelph, Ontario and our western warehouse in Calgary, Alberta. PureSource has a fleet of 4 climate controlled trucks serving the Ontario market and uses common carriers and couriers for other markets.

PureSource currently provides custom manufacturing services for some of our retail clients and has the capability to design and manufacture specialized natural products such as specialized herbal and nutritional supplements and meal replacement products.

### **MANUFACTURED BRANDS**

Puresource Manufactured Brands are among the leaders in the market place. Herbal Select Essential Fatty Acids are one of the fastest growing in the market. Real Organic Bars are the leading organic dried fruit snack bar. Omega-Life is the only trans-free, cholesterol-free flax oil margarine, offering variety to the marketplace. Alpea is the only PMS and Menopausal symptom solution that combines essential fatty acids and herbs. All of Puresource's Manufactured brands offer unique, quality products with the common desire to improve health and wellness. For more information about Puresource Manufactured Brands call 1-888-313-3369.

### **DESIRED INVESTMENT PARTNERSHIPS**

Marketing opportunities for PureSource's manufactured brands and custom manufacturing in major International markets.

Seeking distribution arrangements with Canadian manufacturers of natural products.

**RODRIGUES WINERY**

P.O. Box 98  
Whitbourne, Newfoundland  
Canada A0B 3K0

Telephone: (709) 759-3003  
Facsimile: (709) 759-2086  
E-mail: [hilary@rodrigueswinery.com](mailto:hilary@rodrigueswinery.com)  
Website: <http://www.rodrigueswinery.com>

Hilary Rodrigues/ Marie France  
Owners

Employees: 7  
Facilities: 7000 sq. ft.  
Ownership: Private  
Trade: Exporting  
Export destinations:  
• US  
• Japan

Total exports:  
Percentage of sales  
exported:

Key Alliances:

- Pure Berg Corporation
- Natural Newfoundland Nutraceutical

**NATURE OF BUSINESS**

Rodrigues Winery produces a selection of Blueberry, Partridgeberry, Lingonberry, Strawberry, and Newfoundland Plum wines as well as fruit juices recognized around the world for their taste and quality. The company also conducts distillery research & development.

**MAJOR ACHIEVEMENTS**

- Currently in the implementation stage of ISO 9002
- All wines are KOSHER : Blueberry Wines, Partridgeberry Wine, Barren's blend, Bakeapple Wine, Strawberry Wine, Plum Wine and Raspberry Wine, Plum Wine Blackcurrant Wine.  
Pear Brandy, Plum Brandy, Ice Berg Vodka  
Cloudberry, Blackcurrant, Cranberry Liqueurs  
Apple schnapps

**COMPANY PROFILE**

Sales Volume: \$600 000  
R&D Expenditure: \$80 000

**COMPANY BACKGROUND**

Rodrigues Winery is situated some 50 miles west of St. John's, the capital of Newfoundland. The Old Cottage Hospital was purchased by Hilary and Marie-France Rodrigues in 1986 when a modern clinic was built in the community.

The Old Cottage Hospital was renovated and presently houses one apartment, a provincial court and the Rodrigues Winery.

The Winery was established in November 1993. Their first offering was 300 cases of semi-sweet blueberry wine. This was a traditional wine that was made by many over the last 300 years. It was all sold out in less than a week. The Company is presently selling 15000 cases and expanding.

Rodrigues winery's aim is to use Newfoundland berries in their wines. Their wild berries (blueberries, partridgeberries, bakeapples) have not been subjected to pesticides. These unique berries produce wines that are consumer friendly and offer enjoyment without any environmental pollutants.

Facts about blueberries:



# **FUNCTIONAL FOOD & NUTRACEUTICAL TECHNOLOGIES IN CANADA**

---

Natural blue pigments are effective antioxidants and recognized disease fighters. Antioxidants are thought to delay aging. Naturally occurring antioxidants, such as those found in fresh fruits (blueberries) and vegetables appear to be part of one of the most promising substances for the delaying of the onset of some life shortening disease. Wild blueberries are a good source of dietary fiber, vitamins and minerals. They contain no cholesterol and are low in sodium.

Partridgeberries:

The partridgeberry (*Vaccinium vitis-idaea* L. var. *minus* Lodd) is a native small fruit harvested commercially for a variety of products. It grows in association with several heath plants on organic soils. The fruit is characterized by a high tannin and anthocyanin content and has a pH of 2.5.

## **CURRENT ACTIVITIES**

Rodrigues Winery wines are sold in Alberta, Ontario, Nova Scotia, New Brunswick, Newfoundland, Japan, and New York city metropolitan area.

The Company has started their distillery and will be producing liquors, vodkas and brandies from several fruits.

Rodrigues Winery is introducing new cultivars of Sea Buckthorn to Newfoundland. They currently have a small orchard; however, they will have 30 acres in 2001 and 75 acres by 2002. Products will include juices, wines, liquors, tablets, capsules, creams and oils. The company plans to have farmers growing 500 acres by 2005.

Rodrigues Winery has joined Pure Berg Corporation for the bottling of Iceberg water in Newfoundland to bottle half a million litres in 2001 and increase this to 10 million litres by 2005.

The Company has joined Natural Newfoundland Nutraceuticals and is setting up a plant for the production of:

- Power juices from Newfoundland Blueberries, Northern Cranberries, Sea Buckthorn, Golden Root and other products grown organically in other parts of Canada and globally
- Blueberry and Northern Cranberry tablets
- St. John's extract (tablets and tinctures)
- Sea Buckthorn tablets, oil capsules, creams

## **DESIRED INVESTMENT PARTNERSHIPS**

Rodrigues Winery welcomes alliances with groups that have similar goals i.e. Organic, Kosher, environmentally conscious and ethical goals.

We are starting our Pilot Plant for Natural Newfoundland Nutraceuticals . This will lead to the full production and R&D plant to be completed by Dec 2004

This fully fledged plant will cost \$8.5 Million and have Cutting edge technologies such as CCE and Refractance Window Dryers

## **SEMBIOSYS GENETICS INC.**

110, 2985 – 23 Avenue NE  
Calgary, Alberta  
Canada T1Y 7L3

Telephone: (403) 250-5424  
Facsimile: (403) 250-3886  
E-mail: [bauma@sembiosys.com](mailto:bauma@sembiosys.com)  
Website: <http://www.sembiosys.com>

Andrew Baum  
President & CEO

Maurice Moloney, Ph.D.  
Chief Scientific Officer

Jeffery L. Craig  
Vice President, Business Development

Jim Williams  
Director, Finance & Administration

Harm Deckers, Ph.D.  
Manager, Intellectual Property

### **NATURE OF BUSINESS**

SemBioSys Genetics Inc. is focused on the development and commercialization of innovative, highly profitable protein pharmaceuticals ("biologics") and other protein products that leverage the production, formulation and delivery benefits of the proprietary oilbody/oleosin technology platform. SemBioSys will commercialize products through partnerships with market leaders, combining their commercialization strengths and market access with SemBioSys' intellectual property, product pipeline and product development expertise.

The IAR (Ingredients, Additives and Reagents) business unit is focused on the development of ingredients and additives for the food, animal health and topical delivery markets and reagents for the protein purification market. SemBioSys has targeted these markets because they are not subject to the regulatory constraints of pharmaceuticals and products can be brought to market more quickly and at a lower cost.

Longer-term value is driven by SemBioSys' ability to address manufacturing, formulation and delivery challenges associated with the biologics market. SemBioSys' Stratosome™ Biologics System is the only transgenic system that addresses downstream purification as well as upstream bulk production. This allows SemBioSys to address the capital and production cost issues, both major determinants of value. The Stratosome™ Biologics System also promises formulation and alternative delivery advantages that will enable the commercialization of protein-based therapeutics that otherwise would not be economically viable.

### **MAJOR ACHIEVEMENTS**

- Received \$2.5 million (CDN) from AVAC Ltd.
- Granted U.S. Patents 6,509,453 and 5,856,452 entitled "Oil Bodies and Associated Proteins as Affinity Matrices", which broadly cover methods for the selective separation of desired target molecules from bulk process intermediates.
- Received Alberta Science and Technology Award for its pioneering efforts in plant biotechnology.
- Opened state of the art new facilities in NE Calgary, June 2001.
- Secured \$16.4 million in a Series A financing in Oct. 2000 led by Bay City Capital and Ventures West .
- Secured major equity investment from Dow AgroSciences in 1997.

## ***FUNCTIONAL FOOD AND NUTRACEUTICAL TECHNOLOGIES IN CANADA***

---

- Technology platform protected by broad patents in Canada, the USA, EC and Japan.
- Expressed a variety of recombinant proteins with the oleosin system.
- First two products scheduled for launch in 2004.

### **COMPANY PROFILE**

|               |  |
|---------------|--|
| Sales Volume: | Not Available  |
| R&D           | 50 - 74.9%   |
| Expenditure:  |  |
| Employees:    | 43   |
| Facilities:   | Corporate Offices and Pilot Facility and Research Facilities in NE Calgary |
| Ownership:    | Private  |
| Trade:        | Exporting  |

Key Alliances:  
Aqua Boundy Farms  
Syngenta

### **COMPANY BACKGROUND**

SemBioSys Genetics Inc. was formed in 1994 by Dr. Maurice Moloney in collaboration with University Technologies International (UTI), a technology transfer company wholly-owned by the University of Calgary. The Company currently has 43 employees, most of whom are involved in research and product development. It has 25,000 square foot new facility that incorporates the pilot plant, research laboratories and head office.

### **CURRENT ACTIVITIES**

SemBioSys' objective is to secure a leading worldwide position in plant-based recombinant protein products. SemBioSys will accomplish this by developing and exploiting creative technologies relating to gene expression, protein partitioning, purification and delivery of proteins and other biologics.

---

SemBioSys' technology platform is based on the discovery that recombinant proteins can be targeted to or captured on oilbodies, the structures used by oilseeds to store oil. SemBioSys' technology is protected by twelve issued U.S. patents (also filed worldwide) and several pending applications.

SemBioSys is uniquely positioned compared to all other plant-based pharmaceutical companies and offers dramatic savings in COGS and reduction of capital requirements when compared to cell-culture and fermentation-based production.

SemBioSys' commercialization strategy leverages proprietary technologies to develop cost effective manufacturing, purification and delivery processes with second parties in milestone based, value shared agreements.

In addition, SemBioSys is partnering its pipeline of proprietary proteins which are uniquely enabled by SemBioSys core technologies.

---

### **DESIRED INVESTMENT PARTNERSHIPS**

- Partnerships for development and licensing of the company's biopharmaceutical manufacturing, dermatology and delivery platforms; and
- Partnerships for development and licensing of the company's pharmaceutical, nutraceutical, animal feed and industrial proteins.

## **VACCINIUM TECHNOLOGIES INC.**

P.O. Box 636, Stn. "A"  
Fredericton, NB  
Canada E3B 5A6

Telephone: (506) 444-2444  
Facsimile: (506) 444-5662  
E-mail: jargall@fundy.net  
Website: <http://www.vacciniumtechnologies.nb.ca>

John Argall  
COO

### **NATURE OF BUSINESS**

Vaccinium Technologies Inc.'s (VTI) mission is to generate and consolidate proprietary technologies and expertise in the extraction, characterisation, stabilization, modification and enhancement of the flavonoid constituents of the wild blueberry and other Vaccinium fruit, for commercial application in health functional and/or other industrial uses.

The company benefits from the leadership of a progressive executive, and a Board of Directors who are experienced in research, development and commercialization of new technologies, the health functionality of foods, and the production and processing of fruit. VTI also benefits from a network of scientific affiliations.

### **MAJOR ACHIEVEMENTS**

- Production of standardized flavonoid fractions
- Bio-transformation testing
- VTI has coupled access to fruit, with technology aimed at extracting, enhancing and stabilizing the fruit's flavonoid constituents

### **COMPANY PROFILE**

|                  |                      |
|------------------|----------------------|
| Sales Volume:    | < \$50,000           |
| R&D Expenditure: | \$ 0.1M (2001)       |
| Employees:       | 2                    |
| Facilities:      | Outsource activities |
| Ownership:       | Private              |
| Trade:           | Not Exporting        |

Key Alliances:

- Agriculture and Agri-Food Canada
- University of Prince Edward Island

### **COMPANY BACKGROUND**

Vaccinium Technologies Inc. is a start up company based in New Brunswick, Canada that offers access to wild blueberries and fruit derivatives, as well as technology and expertise in fruit production and processing for nutraceutical and other applications.

Wild blueberries and related fruit are a strong source of flavonoids, which are potent natural antioxidants. Building on the region's global exclusivity in wild blueberry production, VTI has coupled access to fruit, with technology aimed at extracting, enhancing and stabilizing the fruit's flavonoid constituents.

## **CURRENT ACTIVITIES**

Centred primarily on research in the health functionality of wild blueberry and other Vaccinium fruit, the research and development in progress includes:

- Research aimed at extracting, enhancing, characterising and stabilizing the healthful components of wild blueberries and related fruit
- Research collaborations with Agriculture and Agri-Food Canada, regional universities and international research organizations
- Alliances with several international research organizations in the elaboration of the health functionality of wild blueberries and related fruit

## **DESIRED INVESTMENT PARTNERSHIP**

VTI offers consolidated expertise in flavonoid technologies, and seeks collaborations in food, beverage and nutraceutical applications of these flavonoids.

Project partnerships are open to any group whose primary interest is in gaining value from fruit-based flavonoids. Partnership growth is encouraged.

# Nutritional Supplements

**Alphabetical listing of companies dealing with  
nutritional supplement products**

## NUTRITIONAL SUPPLEMENTS

More people are consuming nutritional supplements as a way of meeting their daily dietary needs, preventing disease and improving their quality of life. While nutritional supplements come in various forms, they are all taken to complement the basic whole food diet. Canadian companies produce a spectrum of vitamins, minerals, phytonutrients and other nutritional supplements.

Vitamins and minerals are essential nutrients and must be obtained from dietary or supplemental sources. Canadian companies have developed expertise in the formulation and manufacture of single and complex vitamins, minerals and antioxidants. In addition to consumer brands, Canadian companies also offer full-service contract manufacturing of private label vitamin and mineral supplements.

Canadian companies have developed technologies and expertise in the extraction, characterization, stabilization, modification and enhancement of the flavonoid constituents of fruits. Wild blueberries and related fruits are a strong source of flavonoids, which are potent natural antioxidants.

Clinical research has provided evidence to support the role of essential fatty acids (EFA) in the prevention and mitigation of major disease states including cancer, arthritis and cardiovascular disease. Canadian companies are leaders in the development and manufacture of EFA products from plant and marine sources including evening primrose oil, flax seeds, and fish and marine animal oils. Further, Canadian companies have developed specialized encapsulation and other packaging technologies that preserve the integrity and bio-activity of EFA products.

The advent of biotechnology has resulted in the development of innovative manufacturing technologies. Canadian companies manufacture recombinant proteins using both plant and animal transgenic expression systems. These systems are used to produce food processing enzymes, seed meal enhancers and nutraceuticals. Recombinant protein technology offers significant potential for the future development of value-added functional food and nutraceutical products.

Selected companies that use advanced technologies to produce nutritional supplements include:

- Acadian Seaplants
- Advitech Solutions Inc.
- Alta Natural Herbs & Supplements Ltd.
- Atlantic Marine Products
- Atrium Biotechnologies Inc.
- Bioriginal Food & Science Corp.
- British Columbia Functional Food & Nutraceutical Network
- Canolio Inc.
- Celex Laboratories Inc.
- Chai-Na-Ta Corp.
- Coulee Pickings Ltd.
- Enviro-Test Laboratories
- Forbes Medi-Tech Inc.
- Fortius Natural Nutrition
- Fytokem Products Inc.
- Gelda Scientific Ltd.
- Gourmet Nutrition F.B. Inc.
- Hemp Oil Canada Inc.
- Holista Health Corporation
- Immunotec Research Ltd.
- Innovative Consulting Solutions Inc.
- Institut Rosell-Lallemand Inc.
- Jamieson Laboratories Ltd.
- Lifemax Natural Foods Distribution Inc.
- Mekiwin Corporation
- Natural Factors Nutritional Products Ltd.
- New Era Nutrition/ Advanced Nutritech Systems Inc.
- Newfoundland Aqua Products Inc.
- Nutravite Pharmaceuticals Inc.
- Nutri-Loc Corporation

- Ocean Nutrition Canada Ltd.
- Omega Biotech Corp.
- Omega Nutrition Canada Inc.
- Parrheim Foods
- Puresource Natural Products
- Rodrigues Winery
- Sangster's Health Food Stores
- Seabuckthorn International Inc.
- SemBioSys Genetics Inc.
- SISU Enterprises Co. Inc.
- Sube-PreoBiotics Inc.
- Swiss Herbal Remedies Ltd.
- Taiga BioActives
- Vaccinium Technologies Inc.
- Vita Health Products



## **ACADIAN SEAPLANTS LIMITED**

30 Brown Avenue  
Dartmouth, Nova Scotia  
Canada, B3B 1X8  
Telephone: (902) 468-2840  
Facsimile: (902) 468-3474  
E-mail: [info@acadian.ca](mailto:info@acadian.ca)  
Website: [www.acadianseaplants.com](http://www.acadianseaplants.com)

Scott Bronson  
Sales Manager, Food Ingredients Division

### **NATURE OF ORGANIZATION**

Acadian Seaplants Limited is the world's largest independent manufacturer of value-added marine plant-based products for global health & beauty, nutraceuticals, functional foods, food ingredients and agricultural markets.

### **MAJOR ACHIEVEMENTS**

- Canada Export Award
- Canadian Innovation Award for Technology
- Nova Scotia Export Award
- Nova Scotia Environmental Award for Industry
- One of the '50 Best Managed Companies' in Canada

### **ORGANIZATIONAL PROFILE**

Sales Volume: n/a  
R&D Expenditure: n/a  
Employees: 310

Facilities: 5 processing plants and Corporate Office

Ownership: Private

Trade: Exporting

Percentage of sales exported: 75% or more

Export destinations: Worldwide - global

Key Alliances:

- International, national and local universities, National Research Council's Institute for Marine Biosciences and others.

### **ORGANIZATIONAL BACKGROUND**

Acadian Seaplants Limited is a fully integrated company responsible for every stage of operation from the sustainable harvesting of wild marine plants to the processing, marketing and sales of value-added products exported to world markets.

### **CURRENT ACTIVITIES**

Acadian Seaplants Limited exports to over 70 countries around the world.

### **DESIRED INVESTMENT**

### **PARTNERSHIPS**

Acadian Seaplants Limited is interested in exploring R&D opportunities; specifically new product development and research projects involving marine plants.

## **ADVITECH SOLUTIONS INC.**

650, Boul. Père Lelièvre  
Bureau 170, Vanier (Québec)  
Canada G1M 3T2

Telephone: (418) 686-7498  
Facsimile: (418) 686-2446  
E-mail: info@advitech.com  
Website: <http://www.advitech.com>

Mr. Renaud Beauchesne  
Chief Executive Officer

### **NATURE OF BUSINESS**

Advitech is the knowledge source for bio-active peptides to be used in the functional food and/or nutraceutical market. The technological platform of Advitech is essentially focused on the enzymatic hydrolysis and fractionation process of proteins to activate different functionalities. Advitech's platform will deliver bio-active ingredients in the different domains of application: immuno-modulation, obesity and related diseases such as diabetes type II and anti-inflammatory.

Finally, Advitech provides also product packaging and encapsulation services that meet the (GMP and ISO 9001) standards for the health and pharmaceutical industry.

### **MAJOR ACHIEVEMENTS**

- Development and marketing of a milk protein peptide with an anxiolytic effect
- Development of an ACE inhibitor peptide for the prevention of hypertension
- Development of commercial enzymatic hydrolysis process for whey proteins
- 

- Development and marketing of high protein content products to serve health care practitioners specializing in the treatment of obesity
- Development and introduction of a micro-nutrition concept to serve the needs of nutritionists and other specialized practitioners

### **COMPANY PROFILE**

|                               |   |
|-------------------------------|---|
| Sales Volume:                 | \$ 8 M  |
| R&D Expenditure:              | \$ 1 M  |
| Employees:                    | 41  |
| Facilities:                   | 3000 sq.ft. laboratory<br>8000 sq. ft. manufacturing facilities<br>4000 sq. ft. warehouse |
| Trade:                        | Exporting   |
| Export destinations:          | USA, France, Belgium, Lebanon, Hong Kong  |
| Total exports:                | \$1 - \$10 Million  |
| Percentage of sales exported: | 50 - 74.9%  |
| Ownership:                    | Private   |

#### Key Alliances:

- Biotics Research
- Immunotec Research
- OligoDiffusion

### **COMPANY BACKGROUND**

Advitech was founded in 1996. The company markets its products mainly in Canada, the USA, and Europe. Markets for its functional food products are expanding through specialized networks of nutritionists and other health care practitioners, and also through commercial partnerships with ingredient manufacturers.

Research and development is centralized in Québec and production occurs at three locations: Québec, Montréal and Minnesota.

### **CURRENT ACTIVITIES**

The company is involved in the research and development of biologically active peptides from whey proteins, using a combination of enzymatic hydrolysis and separation processes. Advitech has developed expertise in analytical chromatography of proteins and peptide components and in the encapsulation of food ingredients and pharmaceutical products.

Advitech has developed different lines of products serving different markets all related to the functional food and nutraceutical domains.

### **DESIRED INVESTMENT PARTNERSHIPS**

Through its strategic alliances, Advitech Solutions teams up with leading technological and commercial partners capable of rising to the challenge of researching, manufacturing and marketing the ingredients and products it develops.

Advitech is interested in establishing partnerships in the following areas:

- Research: Projects involving the enzymatic hydrolysis, fractionation and purification of proteins (vegetal and animal).

- Product Development: Products using Advitech's ingredients and having functional food and nutraceutical applications.
- Manufacturing: Conditioning and encapsulation of ingredients for nutritional and pharmaceutical applications.

## **ALTA NATURAL HERBS & SUPPLEMENTS LTD.**

1148-20800 Westminster Highway  
Richmond, BC  
Canada V6V 2W3

Telephone: (604) 303-1131  
Toll free: (800) 535-7502  
Facsimile: (604) 303-1132  
E-mail: [altanat@axionet.com](mailto:altanat@axionet.com)  
Website: <http://www.alta-natural.com>

Mr. Greg Shafransky  
Vice President, Sales

### **NATURE OF BUSINESS**

Alta Natural Herbs & Supplements Ltd. is an established manufacturer of nutraceuticals (herbs, supplements & marine products) with a product range of over 170 items. The company is the first Canadian manufacturer of shark products, and is unique in its proprietary activities that include sourcing, processing, sterilization and encapsulating, bottling, marketing, and sales.

The company is also engaged in the research and development of leading-edge bio-nutraceuticals and phytomedicines for the treatment and care of chronic degenerative and immune related diseases such as hepatitis C, AIDS, cancer and diabetes. The company has already developed its first biotech product, HEPATICO, for the treatment of Hepatitis C, cirrhosis and liver cancer.

### **MAJOR ACHIEVEMENTS**

- Developed its first biotechnology product, HEPATICO for the treatment of Hepatitis C, cirrhosis and liver cancer.
- Export sales now account for 80% of corporate revenues
- Commenced distribution of its products in China in 1997

- Member of the Canadian Health Food Products Association
- Completed a distribution contract with Pharpas, an Italian wholesale health company
- The first Canadian manufacturer of shark products
- Increased the *Alta Natural* product by 400% to include 170 products
- Now has a total of 170 products in its product line

### **COMPANY PROFILE**

Sales                   \$ 4.2 M (1999)  
Volume:

R&D                   \$ 1.5 M (1999)  
Expenditure:

Employees:       20

Facilities:       14,000 sq.ft. office, manufacturing, and state-of-the-art packaging facilities

Ownership:       Public Canadian Venture Exchange (CDNX:AMS)

Key Alliances:

- Health Circle (Hong Kong)
- Meditch (Germany)
- Pharpas (Italy)
- China Academy of Traditional Chinese Medicine (China)
- Russian Academy of Sciences (Russia)
- Georgian Academy of Sciences (Georgia)
- Shenzhen Health Biotechnology Corporation Ltd. (China)

### **COMPANY BACKGROUND**

Alta Natural Herbs & Supplements was formed in 1993 to manufacture and distribute shark's cartilage. In 1996, Alta Natural acquired Nature's Pride Marketing Ltd., a producer of sea-based natural and herbal products, and became the manufacturer of *Cartilago*<sup>™</sup> shark cartilage and shark liver oil. The *Alta Natural* line was created and now includes over one hundred and seventy carefully selected herbs and food supplements.

The company is well positioned to rapidly penetrate and expand sales in the nutraceutical industry. Currently, Alta Natural has strategic working relationships in the U.S., Europe, Asia, Latin America, and the Middle East. Future plans include: the opening of a manufacturing and distribution centre in California, formal distribution contracts in Asia, further penetration of the North American and European markets, and strengthening existing ties in Brazil and Costa Rica. The company has recently moved into the area of biotechnology, specializing in the development of phytomedicines for the treatment and cure of degenerative and immune related diseases.

### **CURRENT ACTIVITIES**

Alta Natural Herbs & Supplements manufactures and distributes specialty shark products as well as other herbal and sea-based products. Besides its specialty products, the *Alta Natural* line includes: essential oils, standardized herbal extracts, single herbs & botanicals, and herbal blends.

- The *Cartilago*<sup>™</sup> shark cartilage food supplement is currently marketed in Canada, Asia, Europe and the USA.
- Its manufacturing base has recently expanded to include the production of other specialty products: chitin, chitosan and glucosamine.

The company's strategy is to place an increased emphasis on high quality products, proven bio-efficiency of the active ingredients, and safety standards.

Alta Natural Herbs & Supplements has recently formed a Biotechnology division to research, develop and manufacture bio-nutraceuticals and phytomedicines for the treatment and cure of chronic degenerative and immune related diseases.

### **COLLABORATIVE ARRANGEMENTS SOUGHT**

Alta Natural Herbs & Supplements Ltd. is seeking partners for the commercialization of its products and organizations interested in financing company activities.

## ***ATLANTIC MARINE PRODUCTS, INC.***

P.O. Box 39  
Catalina, Newfoundland  
Canada, AOC 1J0

Telephone: (709) 785-7387  
Facsimile: (709) 785-1333  
E-mail: mduchesne.amp@nfld.net  
Website: www.omegaplus.nf.ca

Martin Duchesne  
Market Development Manager

### **NATURE OF BUSINESS**

Atlantic Marine Products Inc. focuses on the full utilization and development of high quality products, from the renewable Harp seal resource abundant in the waters off the coast of Newfoundland. The Department of Fisheries and Ocean regulate this industry through a TAC quota system. AMP products include Omega-3 rich Harp seal oil supplied in bulk oil, bottled capsule or bulk capsule form, tanned and dyed sealskins, and processed seal meat. Recent development is an omega-3 skin cream containing the rich omega-3 oil. A process has been developed to further refine the oil into a pharmaceutical grade product free of all contaminants. The oil is extracted from the blubber of the Harp seal and marketed internationally. The health benefits of Omega-3 have been well documented by various scientific journals and initial research conducted by Memorial University in Newfoundland shows seal oil might provide superior benefits over existing Omega-3 sources. Future aspirations include the development of nutraceuticals from fishery by-products, such as chitin and glucosamine.

The refinery at Catalina is federally registered and fully certified for the production of premium food-grade oils. The product and facilities are regularly inspected and approved by the Canadian Food Inspection Agency (CFIA). The process is HACCP-based to ensure quality controls are integrated at every step. Our oil is an all-natural product in that it is refined rather than manufactured, and the process is mechanical rather than biochemical. Our premium food grade oil is available in encapsulated and bottled form. The bottling is done inhouse in our Corner Brook facility.

### **MAJOR ACHIEVEMENTS**

- Fully certified and federally registered plant for the production of food grade seal oil.
- State-of-the-art refinery and tannery.
- Expertise to produce products that meet and exceed the requirements of a demanding international client base.
- Success in exporting our food grade oil to many parts of Asia and Europe.
- A well-established Terra Nova Omega-3 brand name in Canada, particularly in the Atlantic region.
- A level of quality for our sealskins known internationally by furriers and garment manufacturers.

### **COMPANY PROFILE**

Sales Volume: \$ 1,000, 000

R&D Expenditure: \$ 100, 000

## ***FUNCTIONAL FOOD & NUTRACEUTICAL TECHNOLOGIES IN CANADA***

---

|                     |  |
|---------------------|--|
| Employees:          | 70-100   |
| Facilities:         | Full service landing facility<br>Oil refinery<br>Tannery<br>Meat Processing, drying Operations |
| Ownership:          | Private  |
| Trade:              | Exporting  |
| Total exports:      | \$250,000-\$500,000  |
| Export destinations | Asia, Europe   |

### **COMPANY BACKGROUND**

The seal harvest has always been an important supplement to the economy in Eastern Canada. Stringently regulated by the federal government, the seal is a renewable resource which has incorporated itself into the culture and heritage of the Atlantic Canada. The facilities at AMP allow local processing of this resource beyond the harvesting stage to include value-added production.

AMP was first established in response to demand from Asia for premium-quality seal oil. A relatively young company, AMP has grown through acquisition and determination to become a major player in the international marketplace. By focusing on production and operations, AMP has developed the facilities and expertise to produce products of the highest quality. Recent investments in our tanning facility and promotional activity for fur are rounding out our success and bringing AMP closer to the goal of full resource utilization 100% processed in Newfoundland.

In the future, AMP aspires to leverage its successes in producing and marketing seal oil capsules to develop other nutraceutical applications from fishery by-products. Through its location in Newfoundland, AMP has ready access to an abundance of raw materials such as the shells of crustacea, and AMP is currently investigating the potential of producing chitin and chitosan for pharmaceutical/nutraceutical manufacturers.

### **CURRENT ACTIVITIES**

AMP is currently exporting seal oil to Asia, mainly to China, and is also enjoying substantial sales domestically. Current marketing efforts are focused on new market development for the encapsulated oil. In addition, we are investigating the potential of the chitin and chitosan market, and the viability of establishing the production facilities for this. AMP is open to other ideas for expanding its nutraceutical product base through processing of other locally available marine by-products.

### **DESIRED INVESTMENT PARTNERSHIPS**

AMP would like to meet companies who are seeking a supply of processed marine by-products, such as chitin and chitosan. We would like to work with such a company in expanding our processing facilities, to ensure that our investments are market-driven and the customer is pleased with our products.

The company also welcomes proposals for private labeling agreements involving seal oil capsules. AMP is continually seeking research collaborations, particularly with companies interested in essential fatty acid nutrition and other marine by-product research.

## **ATRIUM BIOTECHNOLOGIES INC.**

1405 boulevard du Parc-Technologique  
Quebec, QC  
Canada G1P 4P5

Telephone: (418) 652-1116  
Facsimile: (418) 652-0151  
E-mail: [atrium@atrium-bio.com](mailto:atrium@atrium-bio.com)  
Website: <http://www.atrium-bio.com>

Dr. Serge Yelle  
Director, Business Development

### **NATURE OF BUSINESS & COMPANY BACKGROUND**

Atrium develops and markets nutritional supplements as well as active ingredients and fine chemicals intended for the cosmetics, pharmaceutical, fine chemical and nutritional industries. From its Canadian head office, Atrium focuses on developing and marketing cosmetic ingredients and nutritional products in over 20 countries worldwide. Through its European subsidiary Unipex, Atrium provides innovation support, importation and logistics services for a variety of specialty products in the Company's four business areas. Atrium's objective is to provide its customers with an added value that will make them more competitive on their respective markets.

### **MAJOR ACHIEVEMENTS**

- In July 2001, Atrium announced the acquisition of the French company Unipex. The transaction is valued at some \$20 million.

- In 2000, SGF Soquia Inc. and Fonds de solidarité FTQ invested a total of \$ 20 million in Atrium Biotechnologies to help fund acquisitions of new technologies or companies in the cosmetics and nutrition ingredient areas
- Development of many high value active ingredients, one of them being the MDI Complex that is widely used in the cosmetic industries.

### **COMPANY PROFILE**

|                               |   |
|-------------------------------|---|
| Sales Volume:                 | \$ 75 - 100 M   |
| R&D Expenditure:              | n/a   |
| Employees:                    | 60 (25 in Canada)   |
| Facilities:                   | 2,700 sq. meters research laboratory and production unit at GLP and GMP standards<br><br>2 Wharehouses one in the USA and 1 in Europe |
| Ownership:                    | Private   |
| Trade:                        | Exporting   |
| Export destinations:          | 22 countries around the world (40% USA, 20% Japan)  |
| Total exports:                | \$75 to 100 Million   |
| Percentage of sales exported: | > 95%   |



## **CURRENT ACTIVITIES**

Atrium Biotechnologies is divided into three areas:

1. The Dietary Supplements area develops, manufactures, and distributes a variety of natural products extracted from animal, plant and marine biomass. Currently available products include:

- CarTCell: Molecular extract of antiangiogenic life proteins from shark cartilage
- NatCell: Molecular extract of fetal growth factors of bovine origin
- NatCell: Biotechnological food supplements
- Cartilade: Top quality shark cartilage powder with proven activity
- Biotherapies: Top quality nutraceuticals for health care professionals
- Dr. Chain: Biotechnological mushroom extracts and oriental medicine formulas

These products are available under Atrium's brand name or private labels. Most products are sold through health professional networks in a frozen state, in order to preserve the integrity of their active peptides and molecules. The active ingredients are also being incorporated into nutritional supplements commercialized by international partners, providing added value to their products.

2. The Cosmetics area develops, manufactures and markets natural active ingredients that help attenuate signs of aging. The ingredients that have been developed include:

- PRE Complex (Protein Extract), a natural protein concentrate extracted from animal biomass to help balance certain natural functions of the skin.
- MDI Complex (Marine Derivative Isolates), a natural concentrate from marine extracts, designed to help maintain the structure and appearance of young and healthy skin.

These active ingredients are incorporated in different cosmetic formulations for professional and retail distribution networks.

3. Unipex in Europe:

Unipex is specialized in value added services of importation, in supporting innovation, and in distribution raw materials and high-end brand-name additives for multinational corporations.

## **DESIRED INVESTMENT**

### **PARTNERSHIPS**

Atrium is currently seeking to establish:

- Partnership agreements to develop new active ingredients, ideally from marine or plant biomass, aiming at their incorporation in nutritional supplements and/or cosmetic formulations
- Distribution or licensing agreements for the mass market or specialized health professional market of dietary supplements and cosmetic active ingredients
- Co-development agreements to incorporate Atrium's active ingredients in actual partner's products lines

## **BIORIGINAL FOOD & SCIENCE CORP.**

102 Melville Street  
Saskatoon, SK  
Canada S7J 0R1

Telephone: (306) 975-1166  
Facsimile: (306) 242-3829  
E-mail: [business@bioriginal.com](mailto:business@bioriginal.com)  
Website: <http://www.bioriginal.com>

Mr. Jerome Konecsni  
Vice President of Corporate Development

### **Nature of Business**

Bioriginal Food & Science Corp. is the world's leading supplier of essential fatty acid (EFA) oils, including flax, evening primrose, borage (starflower), black currant and fish, as well as CLA. Delivery systems range from bulk oil and capsules, to finished, packaged products. In addition to the standard oil or seed formats, we supply custom formulations, highly-concentrated EFA oils, water-soluble EFA powders, and a line of flax-based low net carb functional food products including BakOmega™, FibrOmega™ and ProBioFlax™.

### **Major Achievements**

- Bioriginal's oils are non-GMO and meet WHO Codex standards for edible oil safety
- Products are offered that are certified by Quality Assurance International (QAI), and endorsed as Kosher and Pareve
- Bioriginal was the first company in Canada to establish pharmaceutical level GMP standards for oil processing and be certified as such by

- Health Canada
- 2003 ABEX Business of the Year Award
- 2003 ABEX Award for Exports
- 2003 named Innovation Leader by the National Research Council of Canada
- 2002 ABEX Award for New Saskatchewan Product
- 1998 Ernst and Young Canadian National Entrepreneur of the Year Citation for Innovation Product Development
- 1998 Ernst and Young Canadian National Entrepreneur of the Year Award for the Prairie Region (Agriculture and Food Category)
- 1996 SABEX Award for export
- 1994 ABEX new Venture Award

### **Company Profile**

|                               |   |
|-------------------------------|---|
| Sales Volume:                 | n/a   |
| R&D Expenditure:              | n/a   |
| Employees:                    | 80  |
| Facilities:                   | Saskatoon, Winnipeg, Toronto, Montréal, Netherlands and China |
| Ownership:                    | Private   |
| Trade:                        | Exporting   |
| Export destinations:          | United States<br>Europe<br>Japan                              |
| Total exports:                | n/a   |
| Percentage of sales exported: | n/a   |

#### KEY ALLIANCES:

- University of Saskatchewan
- Agriculture and Agri-Food Canada

- National Research Council

### **COMPANY BACKGROUND**

Bioriginal, which was established in 1993, has since grown to have a distribution network spanning six continents, and includes offices in Canada, Europe, and China. Our extensive product lines serve five key markets: nutritional supplements, functional foods, cosmetics, pet and veterinary products, and over-the-counter pharmaceuticals.

Our entire process actually begins in our growers' fields, utilizing the knowledge and experience of our agronomists to ensure that only the best seeds advance into Bioriginal's EFA products. Our specialized Bio-Elite™ quality assurance process allows us to monitor production and quality to guarantee the safety, security and reliability of our products. Bioriginal has a sophisticated enterprise resource management system that ensures product traceability, and is registered with the FDA in compliance with the U.S. Bioterrorism Act.

### **CURRENT ACTIVITIES**

Bioriginal was built on science, and continues to be a leader in EFA research. Our R&D team works closely with the scientific community, staying abreast of the latest research and participating in clinical trials. Bioriginal's team of scientists is closely linked to the University of Saskatchewan, the only campus in Canada offering all five health sciences. Bioriginal's scientists also have close ties with Innovation Place, Agriculture and Agri-Food Canada, the National Research Council, the Saskatchewan Research Council, and the Protein Oil & Starch (POS) Pilot Plant.

### **DESIRED INVESTMENT PARTNERSHIPS**

Our vertical integration, strategic alliances, rigorous quality control and geographic location all contribute to our ability to guarantee a continuous supply of the cleanest, purest product on the market today. By incorporating research, sourcing, processing, marketing and distribution capabilities, we are able to manage the impact of many of the variables that determine success in today's competitive marketplace. Our focus is on developing strategic alliances and partnerships that help maintain our competitive edge and our lead position in the marketplace.

## ***BC FUNCTIONAL FOOD & NUTRACEUTICAL NETWORK***

Room 218 - Food, Nutrition, and Health Bldg.  
2205 East Mall  
Vancouver, BC  
Canada V6T 1Z4

Telephone: (604) 822-6920  
Facsimile: (604) 822-5143  
E-mail: [info@bcfn2.com](mailto:info@bcfn2.com)  
Website: <http://www.bcf2.com>

Contact:  
Dorota Zawistowska, Communications and Marketing  
Manager

### **NATURE OF ORGANIZATION**

The British Columbia Functional Food & Nutraceutical Network (BCFN) is an association representing the functional food, nutraceutical and natural health product industry in BC and the rest of Canada. The purpose of the organization is to facilitate the exchange of scientific and technological information among its members.

BCFN's vision is one of:

- A strong and growing BC industry
- A Canadian regulatory regime that supports the development and use of functional foods, nutraceuticals, and natural health products
- Well-informed consumers and health practitioners who can easily access safe, effective and consistent quality products
- British Columbia is an internationally valued centre for expertise, raw materials, research, industry, markets and supportive infrastructure

#### **BCFN's Program Goals**

- Increased development and growth of BC and Canadian companies.

- Increased business activity between participants in the BC and national industry cluster.
- Wide recognition of the quality of BC and Canadian products and know-how.
- BCFN members have timely access to leading expertise, information and technology for competitive advantage.
- Domestic government policies that support the industry's growth and are sensitive to the needs and realities of the BC industry.
- Linkages with relevant national and international bodies and initiatives.

### **MAJOR ACHIEVEMENTS**

- BCFN is the recognized source in British Columbia of reliable information on functional foods, nutraceuticals, and natural health products (NHPs).
- Since 2003, hosted 15 Breakfast Seminars pertaining to clinical trial issues related to functional foods and NHPs.
- Since 2003, hosted 2 international conferences on Functional Foods and Nutraceuticals in Japan and China as well as 7 business development seminars across the province of BC.
- Incorporated an NHP Analytical Division which deals with technical issues in NHP analysis which so far has organized 6 successful events and workshops.

### **COMPANY PROFILE**

|                  |                    |
|------------------|--------------------|
| Sales Volume:    | N/A                |
| R&D Expenditure: | N/A                |
| Employees:       | 2                  |
| Facilities:      | N/A                |
| Ownership:       | Non-profit society |
| Trade:           | N/A                |

# **FUNCTIONAL FOOD & NUTRACEUTICAL TECHNOLOGIES IN CANADA**

Export destinations: N/A  
(Please list the country(ies) your company is currently exporting to)  
Total exports: N/A  
Percentage of sales exported: 0%

- British Columbia Ministry of Agriculture, Food and Fisheries
- Agriculture and Agri-Food Canada
- University of British Columbia, Faculty of Agricultural Sciences
- British Columbia Institute of Technology, Herbal Evaluation & Analysis Laboratory
- British Columbia Herb Growers Association
- British Columbia Seabuckthorn Growers' Association
- The British Columbia Association of Ginseng Growers

## **ORGANIZATIONAL BACKGROUND**

The British Columbia Functional Food and Nutraceutical Network was formed as an industry initiative due to a recognized need for information and scientific technological exchange among related industries and colleagues including manufacturers, researchers, analytical labs, various governments, education, retailers, growers and consultants. BCFN serves as a network and resource to facilitate the latest, up-to-date information to members.

The role of the BCFN is to:

- Determine the principle challenges facing Canadian nutraceuticals in general and BC nutraceuticals and food industry in particular
- Bring together the key players in the development of the industry, and identify the principle challenges to the industry
- Identify and inform members of new issues and how they will affect the industry
- Encourage strategic alliances within industry – academia and government
- Identify and facilitate business development opportunities for member companies

The BCFN is committed to promote and maintain the stature of the functional food, nutraceutical and natural health product industry in BC and Canada. It focuses on providing a forum for discussion and dissemination of scientific and technical information to ensure growth and development of the industry.

## **Key Alliances:**

- Western Economic Diversification

## **CURRENT ACTIVITIES**

Providing to BCFN members:

- Preferred access to information and networking through reduced rates to frequent seminars and conferences
- Opportunities for input on issues affecting the nutraceutical and functional foods industry
- Advanced notification of upcoming events including future services as the BCFN grows
- Web casting of seminars virtually across the country

Other activities include:

- Promoting BCFN corporate members
- Increasing the profile of the science of nutraceuticals, functional foods and natural health products within BC
- Setting up database of scientific and technological resources for BCFN members

## **DESIRED INVESTMENT PARTNERSHIPS**

- Seeking collaborative agreements with similar associations and organizations
- Funding to expand membership services to the nutraceutical and functional foods sector

- Promoting and partnering research efforts to support applied research
- Work with related organizations to identify industry and sectoral challenges
- Seeking alliances with organizations promoting product quality, purity, potency and efficacy
- Seeking investment partners for the BCFN and for the BC functional food and nutraceutical industry

**CANOLIO INC.**

1751 Richardson, # 7.403  
Montreal, Québec  
H3K 1G6 Canada

Telephone: (514) 748-4367  
Facsimile: (514) 748-5971  
E-mail: Info@Canolio.com  
Website: www.Canolio.com

Lucie E. Létourneau, MBA  
President & CEO

**NATURE OF BUSINESS**

Member of the BioIndustry network, Canolio specializes in the promotion and edification of eco-friendly product lines made from hemp oil and organic hemp seeds. Dedicated through R&D in providing innovative organic hemp by-products, Canolio offers avant-gardiste hemp products with highly controlled quality procedures. In order to control the quality of the hemp seeds and oil, Canolio also cultivates organic hemp in southern Quebec. Industrial hemp is the premier sustainable and eco-friendly choice.

**MAJOR ACHIEVEMENTS**

- First & only company to have had its products sold over the national television in Canada and United States.
- First company to develop hemp coffee.
- First company to develop a line of hemp cosmeceutics & hemp nutraceuticals
- First and only hemp company to be member of BioQuébec
- First company offering hemp nutraceuticals
- 1<sup>st</sup> hemp organization having deposited a patent on a hemp dermoceutic product
- Only hemp company to be representing Canada at the SANA 2003 in Italy

- Only Canadian hemp company to be member of the Bio-Industries network
- Only Hemp company offering its products through major retail chain stores.
- Canolio represented Canada at the International Cannabusiness trade show (Germany) in 2001.
- Member of the HIA (Hemp Industry Association)
- Member for the CHTA (Canadian Hemp trade Association)

**COMPANY PROFILE**

Sales Volume: \$500,000-\$750,000

R&D Expenditure: 15%

Total Exports: n/a

Percentage of sales exported: 35%

Trade: Manufacturing, Distributing, Exporting

Employees: 6

Facilities:

- Corporate office in Montreal
- 2 transformation plants in Qc
- 1 warehouse in France, 1 in New York, 1 in Montreal

Ownership: Private

Key Alliances:

- CQVB (Centre Québécois de la valorisation des biotechnologies)
- MAPAQ
- CEIM
- Bio Québec

## **COMPANY BACKGROUND**

Canolio inc. was founded in 1998 following the new Canadian legislation pertaining to hemp cultivation and to fill the need for quality hemp nutraceuticals, functional food and cosmeceutics.

## **CURRENT ACTIVITIES**

Research aimed at enhancing , stabilizing and isolating specific healthful components and extracts of the hemp oil. Development of new technologies and products transforming thus enhancing the hemp biomass into beneficial health care products. Hempseed oil, has a unique and rich EFA (essential fatty acids) profile, which are vital for maintaining healthy skin, are marketed through Canolio's cosmeceutic line as some of the natural active ingredients that can help in rebalancing skin hydration, and helping in dermatitis itching. Through its nutraceutical & functional food line, it markets the high presence of Omega3 and Omega6.

Canolio is also developing innovative health products for the animal markets. Canolio inc. is well positioned to rapidly penetrate and expand sales in the nutraceutical & functional food industry. Canolio inc. has developed strong relationships with Germany, Switzerland, Italy, Holland and France.

## **DESIRED INVESTMENT PARTNERSHIPS**

- Distribution agreements to develop present and future product lines for the gynecologists markets and specilized health professional markets.
- Seeking strategic alliamces for the mass market targets in United States.



## **CELEX LABORATORIES INC.**

Address: 310-19358-96<sup>th</sup> Ave  
Surrey, British Columbia  
V4N 4C1  
Telephone: (604) 888-1235  
Facsimile: (604) 888-7322  
E-mail: celex-laboratories@shaw.ca  
Website: www.celexlaboratories.com

Contact: Steve Liao  
Title: President

### **NATURE OF ORGANIZATION**

Celex Laboratories Inc. specializes in natural herbal products and natural health products, providing:

1. Custom manufacturing services
2. Analytical services to accompany finished products
3. Creation / production / sale of Celex's own brand name products (Natural Goodness, Natural Products).

Manufacturing can produce tablets, gelatin capsules, granules or teabags.

### **MAJOR ACHIEVEMENTS**

- Developed rapid/effective method for determination of ginsenosides
- Sole Canadian possessor of a closed-vacuum extractor (200kg capacity) and spray dryer

### **ORGANIZATIONAL PROFILE**

|                                  |  |
|----------------------------------|--|
| Sales Volume:                    | ➤ \$1 - \$10 Million   |
| R&D Expenditure:                 | ➤ <\$50,000  |
| Employees:                       | 10   |
| Facilities:                      | 310-19358-96 <sup>th</sup> Ave.<br>Surrey, British Columbia<br>V4N 4C1 |
| Ownership:                       | Corporation  |
| Trade:                           | ➤ Exporting  |
| Total exports:                   | ➤ \$250,001 - \$500,000  |
| Percentage of sales<br>exported: | ➤ 10 - 24.9 %  |
| Export destinations:             | Hong Kong, Japan, South<br>Korea, Taiwan, Indonesia.                   |

### **ORGANIZATIONAL BACKGROUND**

Established in 1987, the initial purpose of Celex Laboratories Inc. was research and developmental services in the area of molecular biological fields and natural pharmaceutical products.

Today, Celex Laboratories has evolved into a company focused on the manufacturing and marketing of natural health products. Based in the Greater Vancouver area, Celex plays a significant role in both the local and global market.

### **CURRENT ACTIVITIES**

Currently specializing in the manufacturing and marketing of natural health products. Celex's facility includes access to many processing machines, some of which are the only of their kind in Canada.

**DESIRED INVESTMENT**

**PARTNERSHIPS**

Celex welcomes potential investors, distributors and exporters interested in expanding Celex products into new markets.

**CHAI-NA-TA CORP.**

5965 205A Street  
Langley, BC  
Canada V3A 8C4

Telephone: (604) 533-8883  
Toll free: (800) 406-7668 (Canada & U.S.A)  
Facsimile: (604) 533-8891  
E-mail: gerryg@chainata.com  
Website: <http://www.chainata.com>

Mr. Gerry Gill  
President and CEO

**NATURE OF BUSINESS**

Chai-Na-Ta is the largest grower and distributor of North American ginseng products in the world and the only "farm to consumer" ginseng company. The Company has its own farms in Ontario and British Columbia, ongoing research and development projects for new product development, and manufacturing and distributing facilities. This vertical integration ensures Chai-Na-Ta product integrity from the farm level through to value-added consumer products.

**MAJOR ACHIEVEMENTS**

- In 1999, 403.7 acres of North American ginseng (*Panax quinquefolius*) were harvested with an average yield of 2,685 pounds per acre for a total of 1,083,643 pounds.

**COMPANY PROFILE**

|                  |   |
|------------------|---|
| Sales Volume:    | \$ 16.2 M (1999)                            |
| R&D Expenditure: | N/A   |
| Employees:       | 400   |
| Facilities:      | 1,400 (approx. ) total ginseng farm acreage |
| Ownership:       | Public (OTCBB : CCCFF, TSE : CC)            |

## Key Alliances:

- Unique Formulations, Inc.
- Chai-Na-Ta Asia
- Wuxi Zhongjia Phytopharmaceuticals Company Ltd.
- Dalian Pegasus Ginseng Pharmaceutical Co. Ltd.
- North American Ginseng Enterprises Ltd.
- China Hua Yuan Industry (Canada) Inc.
- Tung Fong Hung Medicine Co. Ltd.
- University of British Columbia
- University of Toronto
- Harvard Medical School
- University of Alberta

## Joint Ventures:

- Skketchestn/CNT Xexe7ellp (Potent) Ginseng
- President Asia Group (Canada)

**COMPANY BACKGROUND**

Since its inception in 1981, the Company has grown from a successful farm operation into a vertically integrated organization that produces, markets, and distributes its products. Chai-Na-Ta is continuing to develop worldwide markets for its products, forge strategic alliances and initiate scientific research into the efficacy of North American ginseng. Chai-Na-Ta now has operations in Canada, U.S.A., Hong Kong,

China, and Barbados, with the goal of becoming a global leader in the development and marketing of high quality North American ginseng products.

### **CURRENT ACTIVITIES**

Our R&D Department and the Scientific Advisory Board are currently directing four scientific studies. Two human clinical studies are underway at the present time; one at the University of Toronto and one at the University of Alberta. The other programs are being undertaken at the Harvard Medical School and the University of British Columbia. The results of these studies will bring consumer awareness to North American Ginseng and its health benefits and provide Chai-Na-Ta a selling tool into the North American markets.

### **COLLABORATIVE ARRANGEMENTS SOUGHT**

Chai-Na-Ta is currently seeking to continue to engage in, and provide support at leading universities or medical groups for, medical studies and research on the effectiveness of North American ginseng (*Panax quinquefolius*)

## **COULEE PICKINGS LTD.**

Suite 280, 1919 Rose St.  
Regina, SK  
Canada S4P 3P1

Telephone: (306) 721-7863  
Facsimile: (306) 761-2709  
E-mail: harold.moen@couleepickings.com  
Website: <http://www.couleepickings.com>

Harold Moen  
President

### **NATURE OF BUSINESS**

Coulee Pickings Ltd. is a Canadian-based company operating as a primary producer of raw materials for the nutraceutical and dermatological markets.

The company wildcrafts several botanicals that grow naturally in the region and also contracts wildcrafters in other regions to harvest plants.

Research and Development is a critical component. To maintain a competitive advantage, new harvesting, drying, milling, screening and packaging methods are under a constant development.

### **MAJOR ACHIEVEMENTS**

- Developed an economical method to process yellow dock acrials in the field using a portable mill
- Developed a portable solar dryer for controlled drying of herbs

### **COMPANY PROFILE**

|                               |  |
|-------------------------------|--|
| Sales Volume:                 | \$<0.250 M (2003)  |
| R&D Expenditure:              | \$< 0.05 M (2003)  |
| Employees:                    | 2 full time with up to 10 in the prime harvest season                              |
| Facilities:                   | 4000 sq. ft. of storage and processing space , 480 acres of land                   |
| Ownership:                    | Private  |
| Trade:                        | Exporting  |
| Export destinations:          | <ul style="list-style-type: none"> <li>• United States</li> <li>• Japan</li> </ul> |
| Total exports:                | \$50,001 - \$150,000   |
| Percentage of sales exported: | 25 - 49.9%   |

Key Alliances: n/a

### **COMPANY BACKGROUND**

Coulee Pickings Ltd. was incorporated in 1996, as a family business, to wildcraft, grow and preserve botanicals for the floral and manufacturing industry. Because of the company's experience as a wildcrafter, nutraceutical companies and brokers contact the firm to harvest products for their market. This is a vital component of the Coulee Pickings business.

Coulee Pickings operates as a primary producer of raw materials for the nutraceutical and dermatological industries. The firm is equipped to harvest large quantities of botanicals whether they are a cultivated or wildcrafted species.

### **CURRENT ACTIVITIES**

Coulee Pickings Ltd. works with companies to develop new products. The company will continue to provide clients with a clean, pure and uniform primary processed product.

Botanicals available for contract production include:

- Goldenrod Herb (*Solidago canadensis*)
- Mullein Leaf (*Verbascum thapsus*)
- Nettle Aerials (*Urtica dioica*)
- Oat Grass (*Avena sativa*)
- Tansy Herb (*Tanacetum vulgare*)
- Wormwood (*Artemisia absinthium*)
- Yellow Dock Root (*Rumex crispus*)
- Yellow Dock Aerials.

***DESIRED INVESTMENT PARTNERSHIPS***

Coulee Pickings Ltd. is keenly interested in a co-operative development of new products. The company will grow or wildcraft small amounts of botanicals, process them to your specifications, and forward them to your research personnel for testing.

## ***ENVIRO-TEST LABORATORIES***

Natural Health Product & Food Testing Division  
9936-67 Avenue  
Edmonton, Alberta T6E 0P5

Telephone: (780) 413-5227  
Toll free: (800) 668-9878  
Facsimile: (780) 437-2311  
E-mail: [info@envirotest.com](mailto:info@envirotest.com)  
Website: [www.envirotest.com](http://www.envirotest.com)

Mr. Sean Lidstone  
Marketing Director, NHP & Food Division

### **NATURE OF BUSINESS**

Using state-of-the-art technology, Enviro-Test Laboratories provides a wide range of quality natural health product & food testing services. We use both standard USP, AOAC, ICH, AOCS as well as validated in-house methods to insure your products comply with the standards of quality you have set out. Your analysis is conducted under Good Manufacturing Practice (GMP) as mandated by Health Canada as your assurance of a quality result. We are also in contact with the Natural Health Products Directorate (NHPD) making sure that changes in the industry are addressed at the analytical level. Important also is our in-depth understanding of self-imposed industry standards. As an industry leader and advocate, we are a member of the Canadian Health Food Association, CANI, BC Functional Food & Nutraceutical Network, and Saskatchewan Nutraceutical Network.

- Herbal Analysis
- Food Analysis
- Natural Supplement Analysis
- Vitamin Analysis
- Microbiological Services

- Pesticide Analysis
- Contract Research
- Food Label Analysis
- Agriculture Services
- Special Services
- Certified Phytochemical Reference Materials
- Metals & Mineral Analysis

### **MAJOR ACHIEVEMENTS**

- Over 250 analytical methods available to the NHP industry
- All services performed in-house within ETL network

Accreditations:

- Health Canada for recognition of GMP compliance
- ISO/IEC 17025
- Standards Council of Canada for recognition of OECD GLP compliance (Edmonton, Ottawa)
- Standards Council of Canada in co-operation with the Canadian Food Inspection Agency (CFIA) for specific microbiological testing (Winnipeg) and feed & fertilizer testing (Saskatoon) as listed in the Scope of Accreditation
- Standards Council of Canada in co-operation with the Canadian Association for Environmental Analytical Laboratories (CAEAL) for specific environment test as registered by the Council (Edmonton, Calgary, Saskatoon, Winnipeg, Thunder Bay, Grande Prairie, Waterloo)
- Standards Council of Canada for specific health related analysis as listed in the Scope of Accreditation (Winnipeg)
- American Industrial Hygiene Association (AIHA) for industrial hygiene analysis (Edmonton, Winnipeg) & Fungi analysis (Winnipeg)

**COMPANY PROFILE**

|                               |  |
|-------------------------------|--|
| Sales Volume:                 | est. \$30 M  |
| R&D Expenditure:              | est. \$1 M   |
| Employees:                    | 350  |
| Facilities:                   | 9 Locations in Canada  |
| Trade:                        | Exporting  |
| Exporting Destinations:       | <ul style="list-style-type: none"><li>• China</li><li>• Taiwan</li><li>• Thailand</li><li>• Jordan</li></ul> |
| Total exports:                | < \$50,000   |
| Percentage of sales exported: | < 2.5%   |
| Ownership:                    | Private  |
| Key Alliances:                | Contact company for details  |

**COMPANY BACKGROUND**

Enviro-Test Laboratories (ETL) has been providing multidisciplinary analytical services since 1982. Over the years, ETL has grown into nine locations within Canada. The company currently employs over 350 highly trained professionals and technicians with diverse specialization.

The ETL management team has an average of 30 years experience within the analytical industry. Our areas of specialization include complete analysis of natural health products, food product analysis, microbiological analysis, toxic chemical and complex organic and inorganic analysis, pesticide analysis, dioxin/furan analysis, industrial hygiene services, and method development. ETL's clients include major natural health product manufacturers and growers, food producers, Environment Canada, environmental consultants, the petroleum industry, and agricultural chemical companies.

**CURRENT ACTIVITIES**

- Providing 3<sup>rd</sup> party analytical services to natural health product growers, manufacturers, and raw ingredient import/exporters.
- Providing food, food label, and specialised testing to the food industry.
- Production of high purity analytical reference standards available to research laboratories.

**DESIRED INVESTMENT PARTNERSHIPS**

Partnerships in development of new & superior natural health products.



## ***FORBES MEDI-TECH INC.***

Suite 200-750 West Pender Street  
Vancouver, BC  
Canada V6C 2T8

Telephone: (604) 689-5899  
Facsimile: (604) 689-7641  
E-mail: [info@forbesmedi.com](mailto:info@forbesmedi.com)  
Website: <http://www.forbesmedi.com>

Charles Butt  
President and CEO

### **NATURE OF BUSINESS**

Forbes Medi-Tech Inc. is a biopharmaceutical company dedicated to the research, development and commercialization of innovative prescription pharmaceutical and nutraceutical products for the prevention and treatment of cardiovascular and related diseases. Forbes' scientific platform is based on core sterol technology. By extracting plant sterols from wood pulping by-products, Forbes has developed cholesterol-lowering agents to be used as pharmaceutical therapeutics, dietary supplements and functional food ingredients.

Currently, Forbes is developing products in three large market segments: functional foods, pharmaceutical therapeutics and dietary supplements. Their lead product, Reducoil™, is being sold as a functional food and dietary supplement ingredient to treat elevated cholesterol levels, a major risk factor for cardiovascular disease and the leading cause of heart disease in North America. Forbes is also developing FM-VP4, an amphipathic (water-soluble) analogue of phytosterol, which has shown dramatic lipid-lowering and anti-atherosclerotic properties in animal studies as well as promising anti-obesity indications.

### **MAJOR ACHIEVEMENTS**

- Forbes has filed several U.S. Patent Applications for novel processes and formulations allowing the incorporation of Reducoil™ and other functional food ingredients into a wide variety of foods and beverages
- Secured US\$10.75 million financing, Great Point Partners & BioAsia acting as lead investors
- European Phase II trials completed for cholesterol-lowering drug, FM-VP4
- Appointment of Dr. Eric Topol, Chairman, Department of Cardiovascular Medicine and Chief Academic Officer of the Cleveland Clinic Foundation, to chairman of Forbes' Medical & Scientific Advisory Board
- FDA issued health claim letter to Forbes allowing Forbes to advertise the heart-health benefits of Reducoil™

### **COMPANY PROFILE**

|                  |                  |
|------------------|------------------|
| Sales Volume:    | \$14.3M (FY2003) |
| R&D Expenditure: | \$2.1 M (FY2003) |
| Employees:       | 20               |
| Facilities:      | Manufacturing    |

Ownership: Public  
Trade: Exporting

### Key Alliances:

- Chusei (U.S.A.) Inc.
- University of BC
- McGill University

### **COMPANY BACKGROUND**

From its inception, Forbes has prided itself on being an innovator. Established in 1992, the Company's was founded with an objective of developing a different kind of biotechnology company. The company's prime mandate was to search for and acquire innovative technologies in under-researched areas that could be fast-tracked to commercialization in large market segments.

By licensing and developing phytosterol extraction technology, the company was able to commercialize the production of plant sterols for functional foods and dietary supplements into a growing revenue stream. This revenue has provided funding for the ongoing pharmaceutical R&D program to develop FM-VP4.

### **CURRENT ACTIVITIES**

Forbes currently focuses its product development efforts on plant sterols derived from pulping and agricultural by-products. Plant Sterols have long been known for their cholesterol-lowering properties. Forbes believes it has made important technological advances in these areas and offers significant commercial opportunities in three distinct markets:

- Functional Foods: Reducon<sup>TM</sup> is a cholesterol-lowering ingredient for use in functional foods. Reducon<sup>TM</sup> has received FDA GRAS clearance.

- Prescription Pharmaceuticals: Forbes is developing FM-VP4, a prescription therapeutic, for the prevention and treatment of cardiovascular disease through the reduction of cholesterol. FM-VP4 is currently in Phase II clinical trials.
- Dietary Supplements: Reducon<sup>TM</sup> is incorporated into dietary supplement products. Pharmavite incorporates Reducon<sup>TM</sup> into Nature Made's "Cholest-Off". This product has a national ad campaign under way.

Forbes focuses the development of its technology within markets that offer significant potential. Each of its three target markets currently potentially represents a multi-billion dollar global market.

### **DESIRED INVESTMENT PARTNERSHIPS**

The Company's strategy is to leverage its core technologies through strategic partnerships and business associations to deliver functional foods, dietary supplements and pharmaceutical products focused in the prevention and treatment of cardiovascular and related diseases. To further the growth and development of its relative products, Forbes is interested in a partnership with a pharmaceutical company to assist in the commercialization of FM-VP4 and a nutraceutical company to assist in the growth of its cholesterol-lowering ingredient business.

Forbes is currently evaluating its capital strategy to raise additional funds to maximize the growth of the company without interruption from fund raising activities.

## **FORTIUS NATURAL NUTRITION**

45 Maple Hills Avenue  
Charlottetown, PE  
C1C 1P5

Telephone: (902) 566-6600  
Facsimile: (902) 566-6612  
Toll-Free: (888) 714-4697  
E-mail: [info@fortius.ca](mailto:info@fortius.ca)  
Website: <http://www.fortius.ca>

Alan Andreasen, CEO  
Ian Andreasen, President

### **NATURE OF BUSINESS**

Fortius Natural Nutrition is a Canadian owned and operated manufacturer of health nutrition products and OTC pharmaceuticals. The company continually offers the newest, most effective and innovative health products available. This is guaranteed through a diligent and comprehensive research and development team and database. Fortius only formulates products that have reliable, peer-reviewed studies backing their efficacy.

Fortius manufactures products under its own label, as well as for private labels. Fortius' 25,000 sq. ft., state-of-the-art production facility, based in Charlottetown, PE, is certified with a cGMP pharmaceutical licence and has a possible productive output of CA\$30 million with easily facilitated expansion capabilities. Quality control, an extremely expensive aspect of the business, is Fortius' top priority.

Since Fortius is a mobile and dynamic company, it is able to stand ahead of the competition with regards to meeting the needs of the customer. Among the wide range of products and services that Fortius provides are in-house formulating, blending, powder filling, tableting, encapsulating, bottling and labeling of products. Fortius is

capable of handling a complete range of packaging sizes, from producing small products, such as 200 mg tablets, to large multi-kilogram powders, as well as bulk products in 25 kilogram bags.

### **MAJOR ACHIEVEMENTS**

- Manufacturing facility licenced and audited by Health Canada as a cGMP Pharmaceutical Manufacturing Facility
- Fortius continues to grow exponentially, each year expanding into new markets, developing new products, and enriching new and existing customer relationships.
- Fortius ranked 21<sup>st</sup> on Profit Magazine's list of hot Canadian startups in 2000.
- For two years in a row, Fortius placed on Alberta Venture's ranking of the fastest growing companies in Alberta.
- In 1999, the Business Development Bank of Canada voted Alan and Ian Andreasen, co-founders of Fortius, "The 1999 Young Entrepreneurs of the Year."

### **COMPANY PROFILE**

|                               |  |
|-------------------------------|--|
| Sales Volume:                 | \$1 - 10 M                                   |
| R&D Expenditure:              | 0 - 2.5%                                     |
| Employees:                    | 32   |
| Facilities:                   | Manufacturing and warehouse                  |
| Ownership:                    | Private                                      |
| Trade:                        | Exporting                                    |
| Export destinations:          | Belgium, Germany, Netherlands, United States |
| Total exports:                | \$500,001 - \$ 1 Million                     |
| Percentage of sales exported: | 15%  |

Key Alliances:

- University of Prince Edward Island
- National Research Council Institute for Nutrisciences and Health
- Atlantic Veterinary College
- University of Berlin
- University of Hanover

### **COMPANY BACKGROUND**

Alan and Ian Andreasen, identical twin brothers from British Columbia, founded Fortius Natural Nutrition in 1997. Alan and Ian each have degrees in Pure and Applied Immunology and have extensive backgrounds in applied sciences and sports nutrition.

Before founding Fortius, Alan and Ian gained experience working for an international health nutrition company where they were responsible for addressing immune deficiency cases in over 15 countries worldwide. Alan and Ian's previous employment allowed them to develop many contacts in European countries such as Germany, Holland, Belgium, England and Wales.

This, combined with their experience shipping Fortius products internationally, has given them significant exporting expertise.

### **CURRENT ACTIVITIES**

Fortius Natural Nutrition products can be found in health food stores, pharmacies, and retail outlets throughout Canada, the United States, and Europe. Fortius' line of health and active lifestyle supplement includes:

- DynaWhey Protein: unique formula designed to provide the body with an effective source of protein for muscle balance, energy production, immune system function, and overall health.

- Colostrum: natural immune enhancer available in Herbal Synergy Formula capsules, chewable tablets, pure capsules, and liquid.
- Pure Creatine Monohydrate: sports supplement for increasing muscle strength and athletic performance and decreasing recovery time after exercise.
- EstroSoy: soy beverage mix that provides all the health and nutritive benefits of a protein supplement in a vegetarian, cholesterol-free, and dairy-free format.
- MenoSoy: anti-menopause formula containing soy protein and powerful anti-menopause herbs. Designed to treat the symptoms of menopause, lower cholesterol, inhibit the growth of cancer cells, and reduce the incidence of osteoporosis.
- Joint-Ease: a unique, scientifically designed blend of ingredients that provides nutritional support to the entire joint for both long-term care and acute joint injury.
- Cholest-Ease: natural supplement formulated to aid in the fight against elevated cholesterol levels and the risk of cardiovascular disease.
- Old Faithful: product designed to treat erectile dysfunction through the supplementation of ingredients that have been proven to balance hormonal levels and increase genital blood flow.
- Pyrolean: a compliment to anyone's fitness or weight loss program that is designed to help you lose weight and increase endurance.

Fortius also formulates products for the commercial livestock, equine and companion animal (pet) market.

### **DESIRED INVESTMENT PARTNERSHIPS**

Fortius Natural Nutrition is seeking reputable distributors, both national and international, to help expand the Fortius product line and to develop a network of credible distributors.

ingredient of Canadian Willowherb™

## ***FYTOKEM PRODUCTS INC.***

Innovation Place  
101 – 110 Research Drive  
Saskatoon, SK  
Canada S7N 3R3

Telephone: (306) 668-2552  
Facsimile: (306) 978-2436  
E-mail: [fytokem@fytokem.com](mailto:fytokem@fytokem.com)  
Website: <http://www.fytokem.com>

Mr. Art Hesje  
President & CEO

### **NATURE OF BUSINESS**

Fytokem Products Inc. is a Canadian life sciences company engaged in the discovery and commercialization of novel Function-Certified™ plant-based substances - extracts, phytochemicals and bioactive molecules - for use as active ingredients in personal care, pharmaceutical and bio-industrial products.

### **MAJOR ACHIEVEMENTS**

- Completed initial public offering in August 1997
- Released a reference work that provides a wealth of information on the natural molecules found in native and naturalized plants in the northern prairies of North America
- Launched an extract from Canadian Willowherb™ (*Epilobium angustifolium*)
- Launched a tyrosinase inhibition product - Tyrostat™
- Strategic partnership with Atrium Biotechnologies Inc. of Quebec City for personal care industry.
- Isolated and characterized a principal active

### **COMPANY PROFILE**

|                               |   |
|-------------------------------|---|
| Sales Volume:                 | \$577,000   |
| R&D Expenditure:              | \$280,000   |
| Employees:                    | 5   |
| Facilities:                   | Laboratory and micro-manufacturing facilities   |
| Ownership:                    | Public (TSX:FYT)  |
| Trade:                        | Exporting   |
| Total exports:                |   |
| Percentage of sales exported: | Virtually all sales are made to our Canadian distributor who exports to companies worldwide |
| Export destinations:          | Global  |

Key Alliances:

- Saskatchewan Department of Agriculture & Food
- National Research Council's Industrial Research Assistance Program (IRAP)
- Atrium Biotechnologies Inc. (Quebec)

### **COMPANY BACKGROUND**

Fytokem was established in 1994. The company was created for the manufacture of chemicals derived from plant materials. Its head office is located in Saskatoon, Saskatchewan, in western Canada's agricultural heartland and close to vast northern forest regions. Through alliances, the company has expanded its repertoire of plant species from which to prepare extracts. The company currently has two product lines gaining sales success. Both are presently sold as ingredients for use in the personal care industry. Fytokem's vision is to become the premier North American supplier of functional plant extracts and refined phytochemicals.

**CURRENT ACTIVITIES**

Fytokem research is active in the identification and marketing of novel plant extracts and phytochemicals for:

- cosmetics and personal care preparations
- nutraceutical and functional food products
- non-prescription therapeutic preparations

**DESIRED INVESTMENT PARTNERSHIPS**

Fytokem is seeking:

- strategic partners that operate screening programs for external sources of extracts/chemicals
- strategic partners for the discovery and development of natural products

## **GELDA SCIENTIFIC INC.**

6320 Northwest Drive  
Mississauga, Ontario  
Canada L4V 1J7

Telephone: (905) 673-9320  
Facsimile: (905) 673-8114  
E-mail: [gelda@globalserve.net](mailto:gelda@globalserve.net)  
Website: <http://www.gelda.com>

Dr. C. Sen Gelda  
Chairman

### **NATURE OF BUSINESS**

Gelda Scientific Inc. manufactures and distributes food, health products, and industrial enzymes. The company also provides consulting, product development, and laboratory testing services to the food and agri-food sectors. In addition, the company operates a pharmaceutical manufacturing facility, which enables them to produce a wide range of nutritional and pharmaceutical products.

### **MAJOR ACHIEVEMENTS**

- Manufactures or distributes over 300 products
- Constructed a state-of-the-art pharmaceutical manufacturing facility
- Over 200 companies use the company's microbiological and chemical testing services
- Developed the technology to culture two of the most beneficial Bifido bacteria strains and incorporate these into common foods
- First company in Canada to introduce lactose-free ice cream and other dairy products

- In collaboration with leading Ayurvedic experts from India and Canada, the company has developed several Ayurvedic herbal products
- In 1986, Gelda was awarded a Canada Excellence Gold Award in Technology Transfer

### **COMPANY PROFILE**

Sales Volume: Not Available

R&D Expenditure: \$ 0.2 – 0.3 M

Employees: 25

Facilities: 7000 sq. ft. quality control laboratory and pilot plant  
8000 sq.ft. fully equipped HPB-approved pharmaceutical manufacturing facility  
18, 000 sq.ft. warehouse

Ownership: Private

Trade: Exporting

### **COMPANY BACKGROUND**

Gelda Scientific is a family-owned company established in 1978. The company's main focus is on utilizing Canada's agricultural resources and turning them into industrial and consumer food and health products and processes. Products are marketed in Canada, the U.S., Europe and Asia.

### **CURRENT ACTIVITIES**

## ***FUNCTIONAL FOOD & NUTRACEUTICAL TECHNOLOGIES IN CANADA***

---

Gelda Scientific manufactures and distributes an extensive line of food and health products and provides a wide range of services to companies in the food and agri-food industries.

Research is focused on the development of new herbal products and probiotics.

The company's products include:

Health Products:

- bifidobacteria (probiotic) products
- lactase products
- phyto-therapeutical products
- Ayurvedic herbal products

Food Products:

- lactose-free dairy products
- rennet-free cheeses and snacks
- cooking oils and almond oil
- basmati rice and spices
- tropical juices and ice creams

Industrial Enzymes:

- lactase
- pectinase
- isoamylase
- lipase
- hemicellulase

Services include:

- tablet/capsule manufacturing and powder blending/filling
- microbiological and chemical analysis
- contract research & development
- GMP/HACCP training
- environmental audits
- nutritional labeling
- R&D tax credit

Gelda Scientific is one of the leading companies in Canada for the development of new industrial technologies and has directly contributed to the growth of numerous Canadian companies.

Gelda's activities in this area include:

- Identification of opportunities

- Development of business plans
- Transfer of technology
- Adaptation of international technologies

### **DESIRED INVESTMENT** **PARTNERSHIPS**

Gelda is interested in negotiating marketing and distribution agreements for its products.



**GOURMET NUTRITION F.B.  
INC.**

2121-4 Leonard-De Vinci  
Ste-Julie, Quebec  
Canada J3E 1Z2

Telephone: (450) 922-2885  
Facsimile: (450) 922-2886  
E-mail: [info@gourmetfb.com](mailto:info@gourmetfb.com)  
Website: <http://www.gourmetfb.com>

Diane Auclair  
General Manager

**NATURE OF BUSINESS**

Gourmet Nutrition F.B. Inc. is an approved food manufacturing plant and a licensed pharmaceutical firm, producing according to the Good Manufacturing practices generally recognized in North America and worldwide.

Gourmet Nutrition's main activities consists of manufacturing, importing and distributing Medicinal Herbs, Herbal Tea Bags, Botanicals and Supplements.

The company also provides supplemental services including blending, grinding, standardization and formula preparation.

**MAJOR ACHIEVEMENTS**

- Gourmet Nutrition is a member of Canadian Health Food Association and the National Health Products Association

- Gourmet Nutrition has customers worldwide
- The company distributes over 50 lines of health products in Canada alone.

**COMPANY PROFILE**

Sales Volume: \$ < 15 M (1999)  
R&D Expenditure: \$ < 1.0M (1999)  
Employees: 30 +  
Facilities: Manufacturing Plant and Warehouse in Ste-Julie

Ownership: Private  
Trade: Exporting

Export destinations:  
(Please list the country(ies) your company is currently exporting to)

Total exports: N/A  
Percentage of sales exported: 20%

Key Alliances:

- Main distributors in USA, Costa Rica, China , Hong Kong, Panama, Kuwait, Pakistan.
- Custom Manufacturing for a major company in South America

**COMPANY BACKGROUND**

Gourmet Nutrition F.B. Inc is a company based in Quebec and founded in 1988. The company specializes in the field of natural foods. It is directed by Francine and Serge Breton, both having more than 30 years experience in health products.

# ***FUNCTIONAL FOOD & NUTRACEUTICAL TECHNOLOGIES IN CANADA***

---

Gourmet Nutrition has state-of-the-art equipment for processing plants and other ingredients in all forms (various cuts including fine tea-bag cuts and powders). These operations are required to further process the raw ingredients into food grade and pharmaceutical grade products.

All raw materials, materials in process and finished goods are thoroughly tested for integrity and consistency by Gourmet Nutrition's quality control personnel.

## **CURRENT ACTIVITIES**

Gourmet Nutrition F.B Inc. has full packaging capabilities for bottling, sealing, labeling and producing custom-made labels for customers seeking encapsulation and tea-bagging of herbs and food supplements.

The company provides private label packaging for wholesalers and re-sellers.

Phytovie and Herb-Xtra are the company's trademarks for food supplements and herbal teas.

## **DESIRED INVESTMENT**

### **PARTNERSHIPS**

Gourmet Nutrition F.B. Inc. is always looking for:

- Serious distributors of Herb-Xtra and Phytovie brands in other countries
- Custom Manufacturing and Private Labels for clients around the world

**HEMP OIL CANADA INC.**

Address: PO Box 188  
Ste. Agathe, Manitoba  
R0G 1Y0

Telephone: (204) 275-7616  
Facsimile: (204) 261-7270  
E-mail: info@hempoilcan.com  
Website: www.hempoilcan.com

Contact: Shaun Crew  
Title: President  
Email: shaun@hempoilcan.com

**NATURE OF ORGANIZATION**

Hemp Oil Canada is dedicated to the procurement, processing, marketing, and distribution of both retail brand hemp food and hemp body care products, in addition to offering bulk wholesale, private label, and custom processing.

Hemp Oil Canada's goal is to produce the highest quality nutritious hemp seed and oil derivatives for use by value-added food processors, manufacturers, and distributors, creating a wide range of edible dfoods, nutritional supplements, and body care products.

**MAJOR ACHIEVEMENTS**

- Kosher certified
- Certified Organic (OCPP / Pro-cert Organic Systems certification)
- Member of Manitoba Food Processors Association
- Member of the Canadian Hemp Trade Alliance
- Member of the Hemp Industries Association.

**ORGANIZATIONAL PROFILE**

Sales Volume:  
R&D Expenditure: √ \$1 - \$10 Million  
Employees: 5 full time/ 1 part time  
Facilities: 4000 sq.ft. processing & administrative facility  
Ownership: Private corporation  
Trade: √ Exporting  
Total exports: √ \$500,001 - \$ 1 Million  
Percentage of sales exported: √ 50 - 74.9%  
Export destinations:

Key Alliances:

- Manitoba Food Processors Association
- Canadian Hemp Trade Alliance
- Hemp Industries Association

**ORGANIZATIONAL BACKGROUND**

In the Spring of 1999, Hemp Oil Canada opened its first 'hemp seed processing' facility in Canada following 14 months of intense market, product, and processing research and development. They continue today to work on a variety of R&D projects with strategic industry partners.

**CURRENT ACTIVITIES**

Hemp Oil Canada produces:

- Food products: hemp seed oil, hemp oil gelcaps, hulled hemp seed, toasted and roasted hemp seed, sterilized hemp seed, hemp coffee, hemp flour, and hemp protein powder; and
- Body care products: hemp enriched shampoo, and and body lotion, bath and massage oil, moisturizing cream, and lip balms.

## ***FUNCTIONAL FOOD & NUTRACEUTICAL TECHNOLOGIES IN CANADA***

---

- Private label packaging and Custom Processing.
- Product Development
- Research

## ***THE HOLISTA HEALTH CORPORATION***

70 Glacier St.  
Coquitlam, British Columbia  
Canada V3K 5Y9

Telephone: (604) 469-4372  
Facsimile: (604) 469-4382  
E-mail: info@holista.ca  
Website: <http://www.holistahealth.com>

Trevor O'Neil  
President & CEO

### **NATURE OF BUSINESS**

Holista is a leading edge company in the manufacturing of health and nutritional supplements.

The Company believes in educating and informing the public not only about vitamins and minerals, but all the latest in quality nutritional supplementation.

### **MAJOR ACHIEVEMENTS**

- On-staff wellness educators, naturopathic doctor, registered nurses and master herbalists
- Quarterly consumer and professional-based newsletters
- Holista Health Club

### **COMPANY PROFILE**

|                  |  |
|------------------|--|
| Sales Volume:    | N/A  |
| R&D Expenditure: | <\$1M  |
| Employees:       | 36   |
| Facilities:      | 35,00 sq. ft. warehouse,<br>packaging office |
| Ownership:       | Private                                      |

Key Alliances:

- Supplier to all drugstore & mass market retail stores in Canada

### **COMPANY BACKGROUND**

Each Holista product is the result of dedicated research and a commitment to using only the purest of ingredients. All Holista products are ecologically friendly and manufactured from quality ingredients under the most stringent of conditions.

The Company maintains a commitment to researching and developing new products and techniques that may benefit the health of its patrons, from childhood to old age.

### **CURRENT ACTIVITIES**

Holista offers a range of Herbal Supplement and Specialty Vitamin Products.

Herbal Supplement products include:

- Cran-C
- Echinacea
- Evening Primrose Oil
- Feverfew
- Herbal laxative
- IntestaLife
- Lactase Enzyme
- Milk thistle
- Saw Palmetto
- St. John's Wort
- Tea Tree Oil
- Valerian

Non-medicinal Supplement products include:

- Aged Garlic Extract
- Apple Cider Vinegar
- Arthritis kit
- Black Cohosh
- Chondroitin Sulfate
- Cough Cold kit
- Devils Claw

## ***FUNCTIONAL FOOD & NUTRACEUTICAL TECHNOLOGIES IN CANADA***

---

- Flax Seed Oil
- Ginkgo (Ginkgo Biloba)
- Glucosamine muscle joint cream
- Glucosamine Sulfate
- Grape Seed Extract
- Herbal Allergy Relief
- Kava
- Menopause kit
- MSM
- Odourless Garlic
- Premium Fish Oil
- Prostate Health kit

Therapeutic Supplement products include:

- CoQ<sub>10</sub>
- Ester-C®
- For-2
- MagnaCal
- Multi Spectrum
- ProstGard
- Vitamin C with Echinacea
- Zinc Lozenges

## **IMMUNOTEC RESEARCH LTD.**

Address: 292 Adrien Patenaude  
Vaudreuil-Dorion, Quebec  
Canada, J7V 5V5

Telephone: 450-424-9992  
Facsimile: 450-424-9993  
E-mail: info@immunotec.com  
Website: <http://www.immunotec.com>

Contact: Chuck Roberts  
Title: President

### **NATURE OF ORGANIZATION**

Immunotec Research is a leading manufacturer and distributor of quality and innovative health-promoting products.

Immunotec combines rigorous science and business acumen, to deliver a line of dietary supplements, diet aid and related products that contribute to health, vitality and overall wellbeing.

### **MAJOR ACHIEVEMENTS**

- Research leader in the field of milk science
- Published clinical research with flagship product Immunocal (HMS 90). Most recently; Whey Protein Concentrate (WPC) and Glutathione Modulation in Cancer Treatment Anticancer Research International Journal of Cancer Research and Treatment)
- Distributes products to more than 20 countries around the world
- Immunotec's groundbreaking innovations have resulted in numerous patents in North America and around the world
- Immunocal was highlighted at the World Conference on AIDS in 1998

- 2003 was named one of the top 10 fastest growing companies in Quebec

### **ORGANIZATIONAL PROFILE**

|                               |   |
|-------------------------------|---|
| Sales Volume:                 | \$50 - \$100 Million  |
| R&D Expenditure:              | \$500,001 - \$ 1 Million  |
| Employees:                    | 45  |
| Facilities:                   | 32,000 sq. foot head office, Canadian warehousing and shipping center in Vaudreuil-Dorion, QC |
| Ownership:                    | Private   |
| Trade:                        | <ul style="list-style-type: none"> <li>• Exporting</li> </ul>                                 |
| Total exports:                | <ul style="list-style-type: none"> <li>• \$10 - \$50 Million</li> </ul>                       |
| Percentage of sales exported: | <ul style="list-style-type: none"> <li>• 25 - 49.9%</li> </ul>                                |
| Export destinations:          |   |

South America,  
Europe  
Asia  
Africa

### **Key Alliances:**

- Glanbia Nutritionals
- Magistral Biotech Inc.
- Advitech Solutions Inc.

### **ORGANIZATIONAL BACKGROUND**

Chuck Roberts is one of the founding forces of Immunotec. Chuck became Immunotec's President in 1996, when his company joined forces with Immunotec Research Corp., which had 10 years' expertise in research on health-promoting products, to form Immunotec Research Ltd.

Immunotec's products are distributed throughout Canada and the U.S. through their direct selling division as well as through their medical subsidiary.

At Immunotec, research is paramount. Eighteen years of research underlie its flagship product Immunocal or HMS 90 as it is called in Canada. Immunotec's research achievements are testament to their commitment to furthering health research and to tuning the results of that research into products that promote health and wellbeing in the people who use them.

### **CURRENT ACTIVITIES**

At Immunotec, there is a continuing focus on research and product development. Primarily, the R & D department is mandated to develop clinical trials that support Immunotec's global business strategy and validate its industry defining products. It also provides an information interface between its sales force and the medical community, outlining both the therapeutic and prophylactic properties of Immunocal (HMS 90).

Product enhancements, as well as studies on its efficacy in various conditions through actual clinical research are landmarks of Immunotec. An ongoing thrust in new product development is also key to the company.



## **INNOVATIVE CONSULTING SOLUTIONS INC.**

#22, 2917 Georama Road  
Nelson, BC  
V1L 6Y7

Telephone: (866) 352-2740 (toll-free)  
Facsimile: (250) 352-2743  
E-mail: [info@innovating-canada.com](mailto:info@innovating-canada.com)  
Website: <http://www.innovating-canada.com>

Mrs. Tammy Patterson  
Dir. Of Operations

### **NATURE OF BUSINESS**

ICS Inc. is a team of Quality Assurance & Regulatory Affairs specialists. We are a consortium of chemists, biochemists, biologists and microbiologists. We aid developers, manufacturers, marketers and importers / exporters to meet their legal requirements. Our focus is on the pharmaceutical, nutraceutical, cosmeceutical, cosmetics, functional foods, feed and natural health products industries.

Our services span "from cradle to grave" in the life of a product. Examples include:

- performing scientific literature searches;
- performing Drug Submissions;
- helping companies to design, implement and audit their QA programmes (i.e.: GMP, GLP, GCP, HACCP, ISO 17025 and ISO 13485);
- coordinating Clinical Trials;
- performing 3<sup>rd</sup> -party QA audits of manufacturers and labs on behalf of clients;
- ensuring all ingredients, labels and marketing information are compliant to Health Canada, FDA, etc.; and

- managing the entire spectrum of Regulatory Affairs issues to ensure that all paperwork is submitted to the appropriate health authority in a timely and accurate manner.

### **MAJOR ACHIEVEMENTS**

- We have helped well over 200 organizations (in Canada and throughout the world) with their QA/QC programmes, Drug Submissions, Clinical Trials, Labelling materials and Regulatory Affairs issues. These companies range from fewer than 5 people up to some of the world's largest manufacturers.
- ICS has trained over 1,000 people and has presented at a wide variety of conferences.
- We have also been successful in linking Canadian manufacturers with foreign marketers (and vice versa).
- Due to our ever-expanding range of industry contacts, we are uniquely positioned to provide referrals to pre-qualified service providers (such as: raw material & equipment suppliers, commercial labs, contract researchers / manufacturers / processors / packagers / labellers, brokers and translators).

### **COMPANY PROFILE**

|              |             |
|--------------|-------------|
| Sales        | n/a         |
| Volume:      |             |
| R&D          | 10 - 24.9 % |
| Expenditure: |             |

# **FUNCTIONAL FOOD & NUTRACEUTICAL TECHNOLOGIES IN CANADA**

---

Employees: ICS Inc. presently have 5 full-time staff - 4 of which have a minimum of B.Sc., while the other member is a marketing & advertising specialist to the Nutraceutical & Pharmaceutical industries. Each of these staff has at least 15 years of experience in their field of expertise and in management.

- None at the moment.

## **COMPANY BACKGROUND**

ICS Inc. was formed by Dale Enright in June of 1999. Our focus is assisting smaller to mid-size companies throughout Canada, with their QA and Regulatory requirements.

ICS Inc. also has 10 part-time Specialists (which have signed Confidentiality Agreements with ICS Inc.). These specialists include: toxicologists, pharmacists, ethnobotanists, chemical & construction engineers, food scientists, loan & grant application agent, etc.).

Due to our ability to provide exceptional services at highly-competitive pricing and our desire to build mutually beneficial long-term relationships with our clients, we have continually expanded our range of service & expertise by attracting the best people available. If we do not have the internal expertise, we have access to a global network of professionals whom we subcontract on a confidential, case-by-case basis.

Facilities: ICS Inc.'s administrative office is located in beautiful Nelson, BC, with satellite offices in Vancouver BC, Edmonton AB and Saskatoon SK.

Consequently, our client base has now grown to span the globe as a full-service company.

Ownership: Private corporation.

Over the years we have also developed excellent working relationships with various regulatory authorities (i.e.: Canadian Food Inspection Agency, Health Canada, NHP Directorate, FDA, TGA, etc.).

Trade: Importing & Exporting

Export destinations:

- United States
- U.K.
- E.U.
- Asia (China, Japan, Korea)
- Australia

Total exports: n/a

Percentage of sales exported: 40%

## **CURRENT ACTIVITIES**

- We are now focusing much of our QA and Clinical Trials expertise in guiding companies to meet the upcoming NHP regulations.
- ICS Inc. is also involved in linking R&D organizations with manufacturers and with marketers.

Key Alliances:

- We have developed and continually refined both our general and specific training courses on Quality Assurance (i.e.: GMP, GLP, GCP, HACCP, etc.). These courses are also routinely updated to include the constant changes to the regulatory environment and technological & scientific advances within the industry. These training sessions are presented as open seminars and as company-tailored programs.

### **DESIRED INVESTMENT PARTNERSHIPS**

ICS Inc. is open to inquiries concerning mutually beneficial alliances. In unique situations, ICS may forgo some of our up-front service fees for a % of back-end revenues generated by our client's product(s).

**INSTITUT ROSELL -LALLEMAND**

8480 St. Laurent Boulevard  
Montreal, Quebec  
Canada H2P 2M6

Telephone: (514) 381-5631  
Facsimile: (514) 383-4493  
E-mail: [human@lallemand.com](mailto:human@lallemand.com)

Depuis Anpers, President

John Conway, Regional Sales Manager

Henrik Winther, Business Manager Health Food  
Products Europe/Asia

Jean Lamotte, Director, Customer Service

Patrice Malard, Marketing Director

**NATURE OF ORGANIZATION**

Institut Rosell-Lallemand, a subsidiary of Lallemand inc., specializes in the production of microorganisms, lactic acid bacteria, intended for human and animal nutrition, the dairy and food industries, and for soil fertilization.

**MAJOR ACHIEVEMENTS**

- Institut Rosell-Lallemand has taken the Frost & Sullivan 2002 Food and Beverage Marketing Engineering Award for its Enteric-Coating Technology for probiotic supplement capsules
- Development of a vaccine for the treatment of bovine mastitis
- Production of microbiological cultures for the manufacture of:
  - fermented milks
  - sour cream

- Cheese
- Fermented meats
- Silages
- Legume inoculants
- Probiotics for humans and animals
- Introduction of yogurt into North America
- Improvements in freeze-drying of lactic bacteria
- Extensive research related to lactic and nitrogen fixing bacteria
- Shelf Stable Technology for dried cultures, microencapsulation and enteric coating
- Mineral enriched yeast and bacteria

Institut Rosell-Lallemand exports approximately 90% of its products, to 30 different countries. Distribution is done directly, as well as through other agencies.

**COMPANY PROFILE**

Sales: n/a

Volume:

R&D: n/a

Expenditure:

Employees: 100 employees (total)  
7 in R&D, 7 quality control specialists, and the remainder in sales, marketing, and production

Facilities: Fermenters, centrifuges, filtration systems, freeze dryers and laboratories.  
40, 000 sq. ft. facility for production and research

Ownership: Private

Trade: Exporting

### Key Alliances:

- INRA, France
- ITG, Institut Technique du Gruyère
- Bio-Inova
- Agriculture and Agri-Food Canada
- National Research Council of Canada
- Food Research and Development Centre, St-Hyacinthe
- Institut Armand Frappier - INRS
- Instituto Rosell de Lactologie, Spain
- Laval University
- Acadia University
- Hospital for Sick Children, Toronto
- Manufacturers of bacterial cultures
- Several marketing and distributing agents
- Several food processing companies

### COMPANY BACKGROUND

Institut Rosell was founded in 1932 and incorporated in 1934. It was originally located at Oka Agricultural Institute. In 1978, Institut Rosell's laboratories were moved to the Montreal facilities, where they have operated ever since.

Institut Rosell-Lallemand is a privately owned company and has undergone extensive growth over the last few years. As early as 1940, Institut Rosell licensed-out to two American companies to develop sales for Institut Rosell's lactic cultures and production of new dairy products, including yogurt in particular. Currently, it is part of Lallemand Inc., a world-renowned producer of yeast and bacteria for bakery, oenology, and animal & human nutrition.

Institut Rosell-Lallemand has contracted agencies for the sales of its products, primarily in France, Australia, Korea, Japan, Ukraine, Poland, and the Czech Republic. In other countries, Institut Rosell-Lallemand supplies distributors and wholesalers directly.

### CURRENT ACTIVITIES

Institut Rosell-Lallemand is active in the sale, production, research and quality control of numerous products and processes. The main cultures that are produced can be classified as follows:

#### Probiotic Lactic Bacteria:

These are used as prophylactic and therapeutic agents and as food supplements for human and animal nutrition. The main strains produced for these purposes are:

- *Lactobacillus acidophilus*
- *Lactobacillus helveticus*
- *Lactobacillus rhamnosus*
- *Lactobacillus delbruekii* subsp. *bulgaricus*
- *Lactobacillus plantarum*
- *Lactobacillus fermentum*
- *Enterococcus faecium*
- *Streptococcus salivarius* subsp. *thermophilus*
- *Bifidobacterium bifidum*
- *Bifidobacterium breve*
- *Bifidobacterium infantis*
- *Bifidobacterium longum*

#### Yeasts:

- Mineral Enriched Yeast:
    - Zinc
    - Chromium
    - Selenium
    - Copper
    - Magnesium
    - Molybdenum
    - RDA-500
  - *Saccharomyces boulardii*
- Derived products:
- Extracts
  - Glucans
  - Autolysates

#### Cultures for the Dairy Industry:

- Yogurt cultures
- Kefir cultures

- Acidophilus milk cultures
- Mesophilic lactic cultures
- Thermophilic lactic cultures
- Propionic bacteria
- Ripening bacteria
- Cheese molds
- Lactic acidia
- Yeast

Cultures for the Food and Feed Industry:

- Cultures for the fermentation of:
  - Sausage
  - Sauerkraut
  - Kimchi
  - Silage

### **DESIRED INVESTMENT PARTNERSHIPS**

Institut Rosell-Lallemand is seeking companies in human and animal nutrition businesses who are interested in developing partnerships to explore specific research applications for yeast, bacteria, oligosaccharides and mineral enriched yeast. They also seek partners for marketing and research contracts.

## **JAMIESON LABORATORIES LIMITED**

4025 Rhodes Drive  
Windsor, Ontario  
Canada N8W 5B5

Telephone: (519) 974-8482  
Facsimile: (519) 974-4742  
E-mail: none  
Website: <http://www.jamiesonvitamins.com>

Mr. Vic Neufeld  
President

### **NATURE OF BUSINESS**

Jamieson is Canada's leading developer, manufacturer and distributor of natural source vitamins, minerals, herbs, phytonutrients, nutritional supplements and botanical medicines.

Jamieson has built a reputation on the use of natural source ingredients in its products and the pharmaceutical cGMP protocols to ensure premium quality, freshness and purity of products. Specific staff expertise allows Jamieson to perform all vital research in-house, secure ingredients and the best raw materials from a global network of suppliers, and, preserves the integrity of the active ingredients by using a special "dry compression" manufacturing technology. This process is superior to other processes commonly used in the industry in that the integrity and potency of the raw materials are not damaged nor altered by exposure to heat, alcohol and other chemically-altering processes. The company's expertise ensures that products meet their strict guidelines of purity and potency and are free from heavy metals and other unwanted properties.

Jamieson's abilities and talent ensure that all pharmaceutical protocols are met or exceeded, with the mandate that "Quality Means Everything".

### **MAJOR ACHIEVEMENTS**

- 80 years in the health products business
- Manufactures over 350 different product formulations
- Products are formulated, compounded and quality assured in their own research and development pharmaceutical laboratories
- Distributes both finished and bulk products to more than 40 countries around the world
- Established a global network of ingredient suppliers and product distributors
- Jamieson has successfully reformulated and registered over 200 products, as required by certain international health authorities

### **COMPANY PROFILE**

|                               |   |
|-------------------------------|---|
| Sales Volume:                 | \$ 100 – 250 M  |
| R&D                           | \$ 3 M  |
| Expenditure:                  |   |
| Employees:                    | 390   |
| Facilities:                   | Toronto: executive, sales and marketing offices   |
|                               | Windsor: 140,000 sq.ft. manufacturing, R&D, quality control, distribution and support services site |
| Ownership:                    | Private   |
| Trade:                        | Exporting   |
| Total exports:                | \$1 - \$10 Million  |
| Percentage of sales exported: | 10 - 24.9 %   |

#### Key Alliances:

- Council For Responsible Nutrition

- University of Guelph
- Hoffman La Roche
- Bank of Nova Scotia

## **COMPANY BACKGROUND**

Jamieson has pioneered the development of quality natural health care products since 1922. Jamieson is one of the few vitamin companies today that conducts its own research, manufacturing, and distribution. The company employs an experienced, professional research and development staff, consisting of chemists, biochemists, microbiologists, registered nutritionists and phyto-scientists.

Jamieson's products are distributed throughout Canada and the U.S. in drug, mass and grocery outlets and through health food retail and wholesale markets, and internationally through retail and wholesale markets. In Canada, Jamieson serves over 6000 retail outlets. There are five divisions within the corporate umbrella: Jamieson Natural Sources (formulations are positioned for the sophisticated mass retail consumer); Quest (formulations are positioned for the natural healthfood consumer); Wampole (formulations are positioned for the value-conscious mass retail consumer); Promedis (formulations are positioned for professional practitioners in the Bariatric, dermatology and AntiAging fields of medicine); NutriCorp offers private label contracting.

## **CURRENT ACTIVITIES**

Jamieson is active in developing, manufacturing, distributing and marketing products and services for the maintenance of wellness. The company specializes in the following product categories:

- Vitamins & Minerals
- Herbs & Botanical Medicines
- Phytonutrients
- Bio-Food Products

- Skin Care

Jamieson's research team is constantly reviewing scientific and other literature to apply the findings towards innovative and leading-edge products.

## **DESIRED INVESTMENT PARTNERSHIPS**

Jamieson is seeking international distribution agreements for its line of natural source products, based on partners having significant market distribution and excellent marketing skills. Jamieson will lend all necessary regulatory support required for submission to Health authorities. Jamieson awards distribution rights on a market-exclusive basis, with common practice agreement covenants in place.



## **LIFEMAX NATURAL FOODS DISTRIBUTION INC.**

1773 Bayly Street  
Pickering, Ontario  
Canada L1W 2Y7

Telephone: (905) 831-5433  
Facsimile: (905) 831-4333  
E-mail: lifemax@istar.ca  
Website: none

Mr. Robert Sahota  
President

### **NATURE OF BUSINESS**

Lifemax Natural Foods Distribution Inc. specializes in the development, production, and marketing of functional foods and nutraceuticals. The company has developed unique expertise in the development and manufacture of innovative food products from rice, potato and canola. The company offers health conscious consumers and those with special dietary needs- i.e., vegetarians and people on restricted diets- an extensive variety of quality, natural food products.

### **MAJOR ACHIEVEMENTS**

- Developed an egg-less mayonnaise that has the taste and texture of mayonnaise with no cholesterol and 33% less fat
- First company to develop a potato pasta
- In house brands such as Nutrimax gluten-free soups, Lifesource all natural no sugar-added jams, and Lifesource juices catering to those consumers in need for high quality specialty items
- Developed a line of high-quality, great tasting soy nut snacks

### **COMPANY PROFILE**

Sales Volume: \$ < 10 M

R&D Expenditure: \$ > 1 M

Employees: 10+

Facilities: Pickering: 50,000 sq. ft. offices and warehouse  
Buffalo(USA): 50,000 sq. ft. warehouse

Ownership: Private

#### Key Alliances:

- Canadian Analytical Laboratories
- Canadian Health Food Association (CHFA)
- Canadian Diabetes Association
- Local Celiac Chapters

### **COMPANY BACKGROUND**

Lifemax Natural Foods Distribution Inc. is lead by Mr. Robert Sahota and Jagroop Sahota who have grown up as "children of the health food industry". Their education and valuable experience throughout the years enables them and the Lifemax team to focus on the development of functional foods and nutraceuticals. Continuing to offer high-quality specialty products is the goal at Lifemax. There is a great understanding and commitment to help those who are in need of these products. Lifemax feels obligated to continue to make health awareness a priority as we go further into the new millennium.

In the past few years, Lifemax Natural Foods has successfully developed and launched a number of product lines that are already market leaders. The demand for these products extends past the Canadian borders to the United States and other parts of the world.

### **CURRENT ACTIVITIES**

Lifemax Natural Foods manufactures and/or distributes a wide variety of functional foods. Some of the unique products the company currently has on the market are:

- *Lifeso*y: soy-based food products- organic & gluten-free soy sauces, vege-burgers, and soy snacks
- *Pastato*: potato pasta
- *Pastariso*: organic rice pasta
- *Canoline*: canola-based products- oil, egg-less mayonnaise, low saturated fat margarine
- *Nutrimax*: Gluten-free soups, bouillon soup cubes and mayonnaise
- *Lifeso*urce: No-sugar-added jams and juices; nutrient rich, naturally fortified rice cakes

The company is continuing to develop new products. These include:

- New varieties of fat and gluten-free soups
- Gluten-free pasta sauces
- Organic and low-fat cheese
- Cranberry-based beverage formulated to prevent urinary tract infections

### **DESIRED INVESTMENT PARTNERSHIPS**

Lifemax seeks partnerships with importers or distributors to assist in the worldwide export of its products. The company also invites offers from investors interested in financing a functional food company with a number of established product lines.

## ***MEKIWIN CORPORATION***

Box 81  
Gladstone, Manitoba  
Canada , R0J 0T0

Telephone: (204) 385-3374  
Facsimile: (204) 385-3250  
E-mail: info@mekiwin.com  
Website: <http://www.mekiwin.com>

Ivan Milne  
President

### **NATURE OF BUSINESS**

Mekiwin Corporation is involved in the development of production and processes of products to serve the Nutraceutical and health food markets utilizing new and alternative crops supplied by local Manitoba markets. The company works with producers and distributors to help them identify processing opportunities within the herbal supplement market. Mekiwin uses its knowledge to produce top quality herbal supplements in accordance with Health Canada regulations that can be marketed worldwide.

With the help of the University of Manitoba Food Science Centre in identifying processing methods and test procedures that maximize the active ingredients in crops, Mekiwin is now positioned to provide top quality products.

### **MAJOR ACHIEVEMENTS**

- Mekiwin constitutes 80,000 acres of land available for crop production
- After spending two years on research and development, Mekiwin is now positioned to maximize the active ingredients in crops

- Mekiwin follows good manufacturing practices throughout all of its processes
- Mekiwin 's pasteurization process is state-of-the-art and is a totally natural process

### **COMPANY PROFILE**

Sales Volume: \$ 0.25 M (1999)

R&D Expenditure: \$ 0.5 M (1999)

Employees: 8

Facilities: 80,000 acres available for production

Ownership: Private

Key Alliances:

- Department of Agriculture of Manitoba
- University of Manitoba Food Science Department
- National Research Centre/Industrial Research Assistance Program/ Agricultural Research & Development Initiative/  
Western Diversification

### **COMPANY BACKGROUND**

Mekiwin Corporation was formed in 1996 to help Manitoba producers develop production and processing of products to serve the nutraceuticals and health food markets utilizing new and alternative crops supplied by local Manitoba producers. Mekiwin has established itself over the last 3 years in Gladstone, Manitoba with the acquisition of land and buildings on seventeen acres. The company started with 15 southern Manitoba growers constituting 80,000 acres of land.

## ***FUNCTIONAL FOOD AND NUTRACEUTICAL TECHNOLOGIES IN CANADA***

---

Mekiwin had worked closely with the Department of Agriculture of Manitoba and the University of Manitoba Food Sciences Department to develop growing and processing standards for alternative crops such as Horseradish, Echinacea, Valerian, Milk Thistle and Hemp. This collaboration helped the company follow all aspects of product development with hazard analysis and critical control point and good manufacturing practice guidelines.

The company does their own internal research and development. The staff works directly with the University of Manitoba Food Science Department which at the present time is located on its campus. The company's staff has degrees in many disciplines including chemistry, nutrition, dietetics and microbiology.

### **CURRENT ACTIVITIES**

- In spring 2000, Mekiwin facility will be built. All of the procedures and equipment will be moved to its central location in Gladstone, Manitoba. This location is ideal for transportation since it will be located in the middle of the company's grower base
- Mekiwin is consistently and extensively testing its product for active ingredients
- The company is producing products such as the Natural Horseradish, a totally natural horseradish product that has been developed by Mekiwin technologies

### **COLLABORATIVE ARRANGEMENTS SOUGHT**

Mekiwin Corporation is seeking collaboration arrangements with prospective strategic partners. Mekiwin is seeking companies with products that fit well with current philosophies. Mekiwin is strong in process and product development. Prospective partners would be companies with capabilities to maintain and grow specialized crops that cannot grow in Manitoba.

## **NATURAL FACTORS NUTRITIONAL PRODUCTS LTD.**

1550 United Boulevard  
Coquitlam, British Columbia  
Canada V3K 6Y7

Telephone: (604) 777-1757  
Facsimile: (604) 777-1735  
E-mail: [admin@naturalfactors.com](mailto:admin@naturalfactors.com)  
Website: <http://www.naturalfactors.com>

Roland Gahler, FICN  
Executive Chairman

Michael Hobson  
President & CEO

### **NATURE OF BUSINESS**

Natural Factors Nutritional Products Ltd. is a leader in North America's natural health products industry. For more than 50 years, the Company has been producing superior quality phytomedicinal and nutritional remedies, vitamins, mineral products, and other supplements. Innovative product development and one of the largest manufacturing capacities in North America, enable the Company to create more than 300 quality products. Natural Factors distributes its products through natural health food stores to consumers throughout North America and around the world.

### **MAJOR ACHIEVEMENTS**

- Development of unique, condition-specific functional foods for major health needs.
- Extensive university-based research into immunity and phytomedicinal effectiveness.

- Creation of new analytical techniques for phytomedicinal testing and ground-breaking research.
- Leader in the Canadian health food industry by sales and recognized expertise and integrity.
- Establishment of one of the finest Medical and Science Advisory teams in North America, assisting with product development, formulation and testing.
- Recognized by the Canadian Health Food Association and the International College of Nutrition as leaders in basic and original research into the effectiveness of phytomedicinals.

### **COMPANY PROFILE**

|                               |   |
|-------------------------------|---|
| Sales Volume:                 | N/A   |
| R&D Expenditure:              | N/A   |
| Employees:                    | 600   |
| Facilities:                   | Primary manufacturing and R & D facilities in Coquitlam; Organic farms, laboratories, extraction and manufacturing operations in Kelowna, BC; additional administrative, manufacturing and distribution facilities in Burnaby, BC, Mississauga, Ont. and Everett, WA, USA |
| Ownership:                    | Private   |
| Trade:                        | Domestic & Export   |
| Export destinations:          | United States, Japan, China, Singapore, Malaysia, Indonesia, Taiwan, Lebanon<br>Western Europe  |
| Total exports:                | N/A   |
| Percentage of sales exported: | N/A   |

Key Alliances:

- Canadian Center for Functional Medicine
- University of British Columbia
- University of Alberta
- Dalhousie University, NS
- Institute of Pharmacognosy, University of Graz, Austria
- Centre for Integrated Healing

### **COMPANY BACKGROUND**

Established in Canada more than 50 years ago, Natural Factors has expanded steadily by focusing on quality and research, to guarantee the purity, potency and effectiveness of its products. This family business has grown from a dedicated handful of people to more than 600 employees throughout North America. Using the most advanced technological equipment, processes and expertise, Natural Factors has established and continues to maintain consistent reliability and effectiveness of natural products through its extensive herbiculture, laboratory and manufacturing facilities.

Natural Factors has gained a reputation for innovative science and superior product quality through its diligence in product development and testing and its investment in quality control. The Company meets and/or exceeds GMP and GLP standards. Natural Factors' head office and major production and laboratory facilities are located in Coquitlam, British Columbia, Canada. Natural Factors serves Eastern Canada with its offices in Mississauga, Ontario, and American customers from the U.S. Sales & Distribution Centre in Everett, Washington.

### **CURRENT ACTIVITIES**

Research, Development and Manufacturing of Natural Products including:

- Functional Food Products (Healing Foods™)
- Nutraceuticals

- Vitamins
- Multi-Vitamins & Minerals
- Mineral products
- Enzyme products
- Acidophilus / Probiotic products
- Specialty supplements: e.g., Glucosamine & Chondroitin Sulfates, Enriching Greens, Essential Fatty Acids, Phospholipids, etc.
- Single and combination phytochemicals
- Specialty products for men, women and children

### **DESIRED INVESTMENT PARTNERSHIPS**

Governments and Universities

## ***NEW ERA NUTRITION INC.***

10250 – 176 Street  
Edmonton, AB  
Canada T5S 1L2

Telephone: (780) 423-4551  
Facsimile: (780) 423-1786  
e-mail: [newera@nutritech.com](mailto:newera@nutritech.com)  
Website: <http://www.nutritech.com>

Mr. Saul Katz  
President and CEO

### **NATURE OF BUSINESS**

New Era Nutrition is a leading life sciences company engaged in research, development, production and commercialization of functional food products for health promotion, performance enhancement, and disease prevention.

The company is helping clients bring the benefits of nutraceuticals to the mass market through engineered and consumer friendly food products such as nutrition bars, powdered beverages, and Nutrabites™ (confections), as a superior alternative to capsule delivery. New Era provides custom research and development services, in addition to facilitating clinical studies and manufacturing scale-up for industry leaders.

New Era's Functional Food Platform Technology (FFPT™) has been developed in collaboration with Canada's top academic institutions and industry leaders in science and health. The company is comprised of a multidisciplinary team of scientists with expertise in food and nutritional sciences, phytomedicinals and food processing technology.

Nutrition, energy, health needs and taste preferences change throughout the human life cycle. New Era products are nutritionally designed and nutraceutically supplemented as required to specifically address these evolving requirements on an age, gender and need segmented basis. Formulations are adjusted to the preferences of different cultures and countries.

New Era specializes in the development and production of functional and nutraceutical food bars, powdered beverages and confections (Nutrabites™) that are delicious, efficacious and shelf-stable. New Era scientists combine food ingredients and nutraceuticals to synergistically generate desired attributes for consumers.

New Era develops functional food products to address a variety of needs and conditions including the following:

- Low Glycemic
- Prebiotic
- Weight loss
- Antioxidant
- Performance enhancement
- Immune boosting
- Cholesterol reduction
- Heart health
- Skeletal health
- Prostate health
- Eye health
- Joint health
- Mental acuity
- Maternity needs

New Era develops food-form dietary supplements that qualify for structure/function claims, and overcome regulatory concerns and import barriers encountered by drug-form nutraceuticals. Products are developed in accordance with the Dietary Supplement Health and Education Act (DSHEA) of the United States of America.

## **MAJOR ACHIEVEMENTS**

New Era has proprietary technologies for food-based delivery of nutraceuticals, as a superior alternative to the capsule format: Functional Food Bar Technology (FBBT™), Functional Beverage Technology (FBT™), and Nutrabite™ Technology (NBT™).

- Pioneered the development of nutritionally designed and nutraceutically enhanced food products on an age, gender, and need segmented basis.
- Pioneered the use of botanicals for micronutrient and phytochemical supplementation
- Conducted clinical study work to support product development and marketing initiatives
- Continues ongoing research to enhance the bioavailability of nutraceutical compounds through food delivery in contrast to capsule delivery
- Developed minimal processing technology of food bars to maximize the survival of nutrients and bioactive content through commercial production
- Establishment of a unique functional food production facility that imposes dietary supplement standards above food grade standards

## **COMPANY PROFILE**

### **KEY ALLIANCES**

New Era has been developing its technology in conjunction with leading science and health institutions in Canada including ongoing R&D relationships with:

- National Research Council of Canada
- University of Alberta
- University of Calgary
- University of Toronto
- Alberta Food Development and Processing Centre
- AgWest Biotech

## **COMPANY BACKGROUND**

New Era pioneered the development of functional and nutraceutically enhanced food bars. New Era was established in 1992 to research and develop food products to promote health, enhance performance and prevent disease by applying new scientific knowledge. In June 1993 New Era entered into a research and development agreement with the University of Alberta Hospitals to develop an all-natural meal replacement bar. Since 1994 the National Research Council of Canada has supported the advancement of the company's technology through numerous projects. New Era has achieved a successful track record of developing innovative nutrition and functional food products for sale under the brand of industry leaders. The company continues to be an industry trendsetter through basic and applied research for products that are safe, delicious and validated.

### **SERVICES**

New Era provides services for industry leaders. Its clients are from pharmaceutical, food, nutritional supplement, diet, sports, and nutraceutical suppliers that include:

- Balance Bar Company (Kraft Foods)
- Rexall Sundown (Royal Numico)
- QTF (Apotex)
- Kikkoman
- TreeTop
- Imperial Sensus
- Mannatech Inc.
- Prairie Sun Grains (Agricore)



Nutrition Inc.

New Era provides “turnkey” services from ideation through launch:

#### *Product Development*

- New Era has an impressive track record of developing innovative products for market leaders. All formulations are developed using a rigorous scientific process. Product development services include:
- Concept ideation, literature review, feasibility studies
- Sourcing, testing, and costing of ingredients
- Prototype development and bench-top samples
- Computer and analytical nutrient analysis
- Sensory and market evaluation
- Production scale up and quality assurance
- Marketing Support

#### *Contract Research*

New Era works with ingredient manufacturers and suppliers to assess the viability of foods as an alternative delivery vehicle to capsules. These services include technical support to refine their products for inclusion into functional foods, as well as developing appropriate delivery platforms (bar, beverage and confection). New Era offers biomeasurement services to ensure validation of the bioactive content.

#### *Clinical Studies*

New Era designs, budgets and coordinates clinical studies to measure endpoint effects of functional ingredients/formulations in animals and humans. Other clinical studies determine the mechanisms of action through pharmokinetic measurement. Results from these studies provide clients with evidence to support allowable marketing claims.

For additional information please contact New Era

## ***NEWFOUNDLAND AQUA PRODUCTS INC.***

Box 399  
Ramea Newfoundland  
Canada, AOM 1N0

Telephone: (709) 625-2250  
Facsimile: (709) 625-2270  
E-mail: [napi@nf.sympatico.ca](mailto:napi@nf.sympatico.ca)  
Website: <http://www.nfkelp.com>

Ian Stewart  
President

### **NATURE OF BUSINESS**

Newfoundland Aqua Products Inc. (NAPI) is a company that produces various kelp (seaweed grown along the coastlines) products for the national market. The company is committed to long-term sustainable development of its seaweed/kelp resources.

Newfoundland Aqua Products Inc. harvests and processes various species of seaweed/kelp for different uses: such as nutritional supplements, food.

NAPI is committed to long term sustainable development of its seaweed/kelp resources.

### **MAJOR ACHIEVEMENTS**

- Owns and operates the first food grade, certified organic, kelp processing facility in the province
- First certified organic kelp nutritional supplement in Canada
- Secure on line shopping cart

- Member of Alliance of Manufacturers and Exporters Canada

### **COMPANY PROFILE**

|                      |   |
|----------------------|---|
| Sales Volume:        | \$ < 1.0M (1999)  |
| R&D Expenditure:     | \$ ~ 0.05M (1999)   |
| Employees:           | 11  |
| Facilities:          | 5000 sq ft. Drying and Processing Facility                                  |
| Ownership:           | Private   |
| Trade:               | Exporting   |
| Export destinations: | United States and worldwide markets through internet retail sales web site. |
| Total exports:       | < \$50,000  |

### **COMPANY BACKGROUND**

Newfoundland Aqua Products Inc. was founded in 1996. This privately owned Canadian based company processes its products at its facility located in Ramea, on Newfoundland's South West Coast.

Sea Vite® Kelp Nutritional Supplements, produced by NAPI, is 100% natural, certified organic, vegetable based, without additives. It contains a balance of vitamins, minerals, and micronutrients which are essential to the overall health of the body.

Kelp is an excellent source of minerals from the sea, particularly iodine which is very important for the thyroid gland to function properly.

Cultural studies (Interdisciplinary Progress in Health, Harvard School Public Health, 1981 & Dietary Aspects of Carcinogenesis, 1981) relating to the result of diet including kelp have determined a link to a lower breast cancer rate; less obesity, heart disease, rheumatism, arthritis; lower blood pressure; less thyroid disease; less constipation and gastro-intestinal ailments and less infectious disease. Kelp provides nutritional support to the nervous system and heart in the form of iodine, vitamins, minerals and cell salts.

### **CURRENT ACTIVITIES**

Research and Development was a crucial part for the development of NAPI's current products. Realizing development of new products is key to its success, R&D still continues to be one of its main focus.

The products that NAPI currently markets are:

- Sea Vite® Kelp Capsules
- Sea Spice Kelp with spice Blends
- Natural Soaps
- Pet Supplements

All products are harvested and processed in Canada. The various species of marine plants contain a wide range of minerals, vitamins, and micronutrients as well as some interesting medicinal properties. The cold, clean North Atlantic Ocean is an ideal place for maximum growth of these versatile plants.

The company is also developing new products and processes operating under a Quality Management Plan and Hazard Analysis and Critical Control Point plan as well as developing marketing links with manufacturers and distributors across Canada.

### **DESIRED INVESTMENT PARTNERSHIPS**

NAPI is developing marketing links with manufacturers and distributors across Canada. Its goal is to secure national contracts with these firms.

The company is interested in developing relationships in United States and Europe in order to distribute its products internationally.

## ***NUTRAVITE PHARMACEUTICALS INC.***

Unit 102 - 720 Evans Court  
Kelowna, BC  
Canada V1X 6G4

Telephone: (250) 765-0666  
Facsimile: (250) 765-0692  
Toll Free: 1-800-416-4474  
E-mail: Devin@nutravite.com  
Website: www.nutravite.com

Farid Ibrahim  
President

### **NATURE OF BUSINESS**

Nutravite Pharmaceuticals Inc. specializes in the production, distribution and marketing of herbal and nutritional supplements. The company's products are distributed primarily through drugstores, pharmacies and health food stores across Canada.

Nutravite has an established network of wholesalers and brokers throughout Canada. Nutravite is committed to producing products of only the finest quality.

Nutravite is currently available in over 15 countries world wide.

### **MAJOR ACHIEVEMENTS**

- ISO 9002 certified
- cGMP
- Establishment License from Health Canada
- Distribution in major national drug, grocery, and mass market chains

- Unique and innovative products

### **COMPANY PROFILE**

|                  |                     |
|------------------|---------------------|
| Sales Volume:    | \$1 - \$10 Million  |
| R&D Expenditure: | <2.5%               |
| Employees:       | 43                  |
| Facilities:      | Distribution Center |

|                                  |                       |
|----------------------------------|-----------------------|
| Trade:                           | Exporting             |
| Total exports:                   | \$500,000 – 1,000,000 |
| Percentage of sales<br>exported: | <10.0%                |
| Ownership:                       | Private               |

### **COMPANY BACKGROUND**

Sam Ibrahim, Chairman and Founder, established Nutravite in 1993 in Edmonton, AB. Sam is a German educated pharmacist that has extensive training in the use of herbal products. Nutravite supplies over 250 quality-tested products. Nutravite works with independent laboratories to ensure that the quality of their product is maintained. It is Nutravite's mandate to supply premium quality natural products and to educate consumers and healthcare professionals on their safe and effective use. Nutravite's Establishment License and registration to the ISO 9002 standard demonstrates that their quality assurance system meets a rigorous set of requirements for testing, control, and documentation.

### **CURRENT ACTIVITIES**

Therapeutic Areas:

- Nutraceuticals
- Supplements
- Vitamins

- Cosmetics
- Analgesics
- Arthritis
- Immunology

***DESIRED INVESTMENT PARTNERSHIPS***

International marketing and distribution agreements.

***NUTRI-LOC CORPORATION (formerly Altex Processing Inc.)***

Hong Kong Bank Building  
1500- 885 W.Georgia St.  
Vancouver, BC  
V6C 3E8 Canada

Telephone: (877) 794-7878  
Facsimile: (604) 648-9670  
E-mail: [tgordon@nutriloc.com](mailto:tgordon@nutriloc.com)  
Website: <http://www.nutriloc.com>

Dr. Tom Gordon  
Chairman & CEO

Andrew Small  
President & COO

**NATURE OF BUSINESS**

Manufacturer of shelf stable , high nutritive value dehydrated vegetables, herbs and fruits. We are focused on producing certified organic whole, sliced and powdered product and are QAI certified and Kosher. Nutri-loc Corp. has a proprietary process superior to freeze dried called Nutri-Loc <sup>tm</sup> which preserves the color, flavor and nutrient value of the fresh botanical. Nutri-Loc Corp. is also a Manufacturer of standardized liquid and powdered extracts and specializes in certified organic botanical ingredients. The extract plant also does encapsulating, bottling and labeling. Nutri-Loc Corp. has an oil extraction division that utilizes supercritical extraction technology to produce rare botanical and marine oil isolates and anti-oxidants. Servicing the food, functional food, beverage and nutraceutical industries.

Nutri-Loc Corp. has its own line of certified organic standardized extract formulas called Freshwoods Farm. The company offers custom manufacturing and private label services.

**MAJOR ACHIEVEMENTS**

- Purchased \$4 M worth of vacuum microwave equipment from CA and moved and installed into warehouse Sept 02
- Opened dehydration facility in Vancouver January 2003
- QAI and Kosher certification in July 2003

**COMPANY PROFILE**

Sales Volume: \$500,000-\$1 million

R&D Expenditure: \$ 0.1 M

Employees: 6

Facilities: 5000sq ft dehydration factory and 6,000 sq ft extract manufacturing plant

Trade: Exporting

Ownership: Private

Key Alliances:

- High Pressure Extraction Ltd.
- Agriculture and Agri-Food Canada (Summerland, BC)
- Canadian Phytopharmaceuticals Corp.
- English Bay Batter Co.
- Washington State University- Food Sciences Dept.

## **COMPANY BACKGROUND**

Established in 2000, the company began marketing its liquid and powder extracts to nutraceutical and food industries as well as the Freshwoods Farm retail line of certified organic supplements.

Through research and development, the company is actively extending its line of herbal ingredients. The company is involved in research collaborations with the University College of the Cariboo and the Pacific Agri-Food Research Centre. Here research is conducted on processing methods and new applications.

## **CURRENT ACTIVITIES**

- Marketing in the U.S. of bulk standardized liquid and powdered extracts both in the dietary supplement industry and the functional food industry
- Production of Nutri-Loc shelf stable high nutritive value vegetables, berries and fruits for the food industry.
- Distribution and marketing of a no chemical, no alcohol, all botanical mouthrinse

## **COLLABORATIVE ARRANGEMENTS SOUGHT**

- Distribution agreements for its products in Pacific Northwest Region of US and foreign markets
- Manufacturing agreements for companies wishing to market and distribute their own herbal products
- Joint product development agreements to adopt our proprietary vacuum microwave technology.

## **OCEAN NUTRITION CANADA LTD.**

757 Bedford Highway  
Bedford, Nova Scotia  
Canada B4A 3Z7

Telephone: (902) 457-2399  
Facsimile: (902) 445-2220  
E-mail: rorr@ocean-nutrition.com  
Website: <http://www.ocean-nutrition.com>

Mr. Robert Orr  
President

### **NATURE OF BUSINESS**

Ocean Nutrition Canada Ltd. (ONC) is a rapidly expanding life science company built around marine biotechnology and proprietary technologies creating "Natural Health from the Sea".

ONC is the world's leading innovator, researcher, and vertically integrated provider of quality marine-based nutraceuticals and functional food ingredients. ONC's vertical integration strategy begins with a readily available, reliable and sustainable source of quality raw materials through its parent company Clearwater Fine Foods Inc. – North America's leading seafood harvester and exporter.

ONC supplies the highest quality marine-based dietary supplements and functional food ingredients from its GMP manufacturing facilities in Nova Scotia Canada. ONC supplies both ingredients and brand product to market leaders in all of its primary markets, the United States, Europe and Asia.

ONC operates the largest and most sophisticated privately held R & D facility for marine natural products in Canada. ONC's research and development team is focused on:

- The discovery of new marine natural products & new sources of known nutrient compounds
- The development of proprietary marine-derived nutritional ingredients
- Clinical validation of the efficacy and safety of all products
- Development of proprietary extraction, processing and delivery methods

### **MAJOR ACHIEVEMENTS**

- Largest producer of concentrated omega-3 products in North America
- The first to obtain self-affirmed GRAS (generally recognized as safe) status on an omega-3 concentrates (30%, 50%, 60%)
- Three (3) novel patented compounds developed in our R&D facility
- Six (6) novel patents pending compounds developed in our R&D facility
- Pharmaceutical level cGMP and HACCP certification for our manufacturing, encapsulation and packaging facilities
- Drug Identification Number (DIN) for ONC's omega-3 concentrates
- Compliant with new Council for Responsible Nutrition (CRN) monograph for long chain omega-3 fatty acids
- Honored as one of Canada's leading innovative companies by Industry Canada and the National Research Council (NRC)
- Key alliances in place with international research, dietary supplement, food and pharmaceutical organizations



## **COMPANY PROFILE**

|                               |   |
|-------------------------------|---|
| Sales Volume:                 | n/a   |
| R&D Expenditure:              | n/a   |
| Employees:                    | 200 (38 Research Staff)   |
| Facilities:                   | ~Four cGMP manufacturing facilities totaling over 75,000 sq.ft.<br>~12,000 sq.ft. research facility<br>~Two pilot plant operations<br>~Sales & administration office located in Bedford, Nova Scotia  |
| Ownership:                    | Private   |
| Trade:                        | Exporting   |
| Export destinations:          | North America, Europe, Asia   |
| Percentage of sales exported: | 96%   |
| Key Alliances:                | <ul style="list-style-type: none"><li>• National Research Council of Canada Institute for Marine Biosciences</li><li>• Dalhousie University</li><li>• Southwest Research Institute</li><li>• Innovacorp</li><li>• Clearwater Fine Foods Inc.</li><li>• Qingdao Ocean University</li></ul> |

## **COMPANY BACKGROUND**

Established in 1997 following the purchase of Laer Products Inc., Ocean Nutrition Canada is a wholly-owned subsidiary of Clearwater Fine Foods Inc., one of the largest seafood, harvesters, processors and exporters in Canada. Ocean Nutrition Canada has direct access to the cold, deep waters of the North Atlantic, long known for its high quality fish and marine life. ONC is the largest producer of long chain omega-3 fatty acids from fish oil in North America. The company employs unique processing technology and strict lab measures to ensure removal of any contaminants and heavy metals such as PCBs or mercury.

## **CURRENT ACTIVITIES**

1. Research and Development
  - The primary focus of our research and development team is the discovery, identification and creation of unique natural health products and functional food ingredients from marine sources.
  - Ocean Nutrition Canada Ltd. is also researching and pursuing the development of proprietary extraction, processing, manufacturing and delivery systems with the goal of ensuring the consumer receives the highest quality ingredients with proven efficacy, safety and value from these unique marine-based organisms.
2. Dietary Supplements
  - Supply of marine-based nutritional products through private label strategic partners
  - In-house capabilities to supply bulk ingredients and/or fully finished bottled product
  - Products Description:

- ~Complete range of standard and concentrated formats of fully refined omega-3 fish oils, available in both bulk oil, softgel capsules and bottled finished product
- ~Blood pressure lowering product derived from fish protein
- ~Immune modulating product derived from marine algal extract

### 3. Functional Food Ingredients

- Proprietary and patent protected microcapsulation technology that can fortify foods with minimal impact on shelf life, flavour and cost
- ONC is active in supplying ingredients to both human and pet food companies worldwide

### 4. Manufacturing Capabilities

- Patent protected delivery systems for nutritional ingredients
- Microencapsulation for unstable nutrients such as concentrated Omega-3s
- Other technologies that enable delivery of more bio-available lipid-soluble nutrients
- Unique Omega-3 concentration facility utilizing proprietary process for concentration and purification of omega-3s. ONC is the world's largest Omega-3 fish oil concentrate manufacturer.
- Encapsulating and bottling in-house
- Two Pilot Plants with capability to develop new extraction and manufacturing methods

## **DESIRED INVESTMENT PARTNERSHIPS**

Ocean Nutrition Canada is seeking collaborative arrangements with prospective strategic partners. Ocean Nutrition is actively seeking companies or research groups with unique products or technologies that fit with ONC's business strategy, for commercialization, acquisition, or licensing. In addition, ONC seeks customers who are organizations with global distribution capabilities preferably possessing recognized brands in the following sectors:

- Dietary supplements – looking for ingredients or finished product
- Traditional food brand marketers
- Animal food manufacturers in companion animal (dogs and cats) and food animal (cows/chickens) sectors

**OMEGA BIOTECH CORP.**

Suite 3, 4476 Markham St.  
 Vancouver Island Technology Park  
 Victoria, BC V8Z 7XZ  
 Telephone: 250-881-8126  
 Facsimile: 250-881-8136  
 E-mail: general@omegabiotech.com  
 Website: <http://www.omegabiotech.com>

Rick Weatherhead  
 Director, Business Development

|                               |   |
|-------------------------------|---|
| R&D Expenditure:              | <\$50,000                                   |
| Employees:                    | 12  |
| Facilities:                   | Manufacturing Plant & Offices               |
| Ownership:                    | Private                                     |
| Trade:                        | Exporting                                   |
| Total exports:                | \$50,001 - \$ 1 Million                     |
| Percentage of sales exported: | 50 – 74.9 %                                 |
| Export destinations:          | USA, Japan, Korea, South Africa and Germany |

Key Alliances:

**NATURE OF ORGANIZATION**

Omega Biotech is an antioxidant manufacturer focusing on grape seed extract in bulk and retail capsule form. Antioxidants are bio-active phytochemicals (from plants), with significant application to anti-aging and disease prevention, a growing concern of the approximately eighty million baby-boomers in North America.

Omega Biotech is an acknowledged leader in the research and development of specialized processes needed to extract and purify natural substances for the alternative health care industry.

**MAJOR ACHIEVEMENTS**

- Developed new Beverage quality product ideal for wine , clear juices & bottled water
- Diversified into antioxidant trans-dermal creams
- Has a line of retail encapsulated antioxidant oral products.

**ORGANIZATIONAL PROFILE**

Sales Volume: \$1 - \$10 Million

**ORGANIZATIONAL BACKGROUND**

Omega Biotech Corporation is a private, Canadian-owned company based on Vancouver Island, British Columbia. Established in 1991, its primary aim was to develop and extract phyto-nutrients from botanicals - including oligomeric proanthocyanidins (OPC's) from grape seeds - for use in the nutraceutical, food and beverage and personal care sectors.

Research and development efforts were made in-house, and in cooperation with the University of Victoria, the University of British Columbia, and research teams from the National Research Council and the Pacific Forestry Center. Omega Biotech's board of directors is Canadian and includes:

- Director: Dr. David Baker
- President: Murray M. Persicke
- General Manager: Joji Ishikawa
- Director of Business Development: Rick Weatherhead

**CURRENT ACTIVITIES**

Omega Biotech manufacturers high quality, potent antioxidant extract from grape seeds from Mt. St Helens area of Washington State, USA. The company also manufacturers antioxidant network transdermal creams. The company has a retail line of antioxidant capsules.

Products include:

- Omegavin™, a grape seed extract produced from white grapes grown in an area of the US Pacific North West where the soil is unusually rich in nutrients. The seeds are separated and dried prior to the wine making process thereby preserving their powerful antioxidant properties.
- Protovin™, one of the leading grape seed extracts in the industry manufactured using strict quality control standards.
- Omage Anti-aging Cream for skin firming, brightening and repair of minor skin damage by sun or aging. Over 30 antioxidants plus essential and botanical oils.

### **DESIRED INVESTMENT PARTNERSHIPS**

Omega will continue to form strategic alliances with formulators, manufacturers and raw material suppliers to consolidate its market presence in this sector. Its growing customer base is looking to Omega for other high quality natural extracts, backed by scientific analysis.

The company is seeking partnerships with laboratory and research organizations, distributors of nutraceuticals, functional foods, dietary supplements and cosmaceuticals as well as partners for recycling of waste grape seed extract and pomace and marc from wineries.

**OMEGA NUTRITION  
CANADA, INC.**

1695 Franklin Street  
Vancouver, BC  
Canada V5L 1P5

Telephone: (604) 253-4677  
Facsimile: (604) 253-4228  
E-mail: [info@omeganutrition.com](mailto:info@omeganutrition.com)  
Website: <http://www.omeganutrition.com>

Mr. Robert Gaffney  
President

**NATURE OF BUSINESS**

Omega Nutrition is a micro-oil manufacturer specializing in the small batch processing of unrefined organic oils. The company is the original manufacturer of flax seed oil in North America. Flax seed oil is a rich vegetable source of essential fatty acids (EFAs)- most notably Omega-3 EFAs. Omega Nutrition has developed a proprietary manufacturing process, omegaflo®, which protects their products from degradation during processing and which avoids procedures commonly applied in the refining of vegetable oils such as preheating and steaming seeds, solvent extraction, hexane, bleaching, filtering and deodorizing.

For manufacturing its products, Omega Nutrition purchases organic seeds and nuts certified by internationally recognized certifying agencies such as the Organic Crop Improvement Association and the Washington State Department of Agriculture. Seeds and nuts are pressed without damaging exposure to light, heat, oxygen and reactive metals at temperatures ranging from 30°C to 43°C. Extracted oils are then bottled in opaque containers using inert gas to create an oxygen-free environment. The final result is premium quality, unrefined, certified organic oils with all the nutrients and flavour intact.

**MAJOR ACHIEVEMENTS**

- First company in North America to manufacture food-grade flax seed oil for the marketplace
- Internationally recognized as the world leader in quality EFA products
- Developed omegaflo® processing technology that preserves the integrity of EFA products
- First company in North America to introduce a balanced EFA product with a 1:1 ratio of omega-3 to omega-6 EFAs

**COMPANY PROFILE**

|                  |     |
|------------------|-----|
| Sales Volume:    | N/A |
| R&D Expenditure: | N/A |
| Employees:       | 26  |

# **FUNCTIONAL FOOD & NUTRACEUTICAL TECHNOLOGIES IN CANADA**

---

- Facilities:
- Vancouver: 12,000 sq.ft. facility for R&D, production, warehousing, sales & marketing, and administration
  - Bellingham (USA): Manufacturing & distribution centre; 20,000 sq.ft. manufacturing facility

- Ownership: Private  
Trade: Exporting  
Export destinations: Southeast Asia, United Kingdom, Australia, and New Zealand.  
Total exports: N/A  
Percentage of sales exported: N/A

Key Alliances:

- University of Toronto
- University of Manitoba
- Canadian Organic Farmers

## **COMPANY BACKGROUND**

Omega Nutrition introduced certified organic Flax Oil to North America in 1987. Based in Vancouver, B.C., and Bellingham, WA, the company has the distinction of being the first company in North America to manufacture flax seed oil supplements.

Omega Nutrition products are unrefined, organic, kosher, and GMO-free, and are recognized worldwide as the premium flax products and EFA blends. Also available are various culinary oils and vinegars, including organic Coconut Oil and Apple Cider Vinegar, and nutritional pet products. Omega's exclusive omegaflo® process protects delicate EFA's and the integrity of unrefined oils by preventing exposure to light, oxygen, and reactive metals.

## **CURRENT ACTIVITIES**

Omega Nutrition has a variety of unique EFA products and high quality organic culinary oils currently on the market. These products include:

- Flax Seed Oil
- Hi-Lignan™ Flax Seed Oil
- Nutri-Flax™
- Flax Hi-Lignan™ Capsules
- Garlic-Chili Flax Seed Oil
- Essential Balance®
- Essential Balance Jr.™
- Borage Oil
- Omega Plus® Capsules (contains flax and borage oil in a 5:1 ratio)
- Hemp Oil
- Sesame Oil
- High-O™ Sunflower Oil Blend
- Pumpkin Seed Oil
- Coconut Oil
- Pumpkin Seed Butter

The company is continuing to develop new products to extend its line of EFA products. In addition, Omega Nutrition has provided raw materials for studies in EFA nutrition at the University of Toronto and the University of Manitoba.

**DESIRED INVESTMENT**

**PARTNERSHIPS**

Omega Nutrition is seeking agents and distributors for its products in international markets.

## ***PARRHEIM FOODS***

817 – 48<sup>th</sup> Street East  
Saskatoon, Saskatchewan  
Canada S7K 0X5

Telephone: (306) 931-1655  
Facsimile: (306) 931-2664  
E-mail: [pheim@parrheimfoods.com](mailto:pheim@parrheimfoods.com)  
Website: [www.parrheimfoods.com](http://www.parrheimfoods.com)  
Mr. Glenn O'Hara  
General Manager

### **NATURE OF BUSINESS**

Parrheim Foods specializes in the production of value-added functional food products from legumes and cereals. The company's products are used as additives by the food and animal feed industries to enhance the functional and/or nutritive value of their products.

### **MAJOR ACHIEVEMENTS**

- Establishment of Global Broker and Distributor Network
- Development of internal research environment focused on technology development and increasing product lines
- Acquisition of Wet Mill in 1997
- Expansion of grain fractionation from processing yellow field peas to include other legumes plus cereals

### **COMPANY PROFILE**

Sales Volume: \$ 5 - 10 M  
R&D \$ 0.1 M  
Expenditure:

Employees: 25  
Facilities: Dry Mill (Saskatoon)  
Ownership: Parrish & Heimbecker (Private)  
Trade: Exporting  
Total exports: \$1 - \$10 Million  
Percentage of sales exported: 25-49.9%

#### Key Alliances:

- University of Saskatchewan
- University of Toronto

### **COMPANY BACKGROUND**

Parrheim Foods is a division of Parrish and Heimbecker. The company commenced operations in 1989 following the acquisition of a dry mill in Saskatoon, Saskatchewan. The company began by processing yellow field peas to yield protein, starch and fibre products. Since then, the company's processing capabilities have expanded to include other legumes as well as cereals. The purchase of a wet mill in 1997 further increased the company's production capacity and expanded their product lines.

Parrheim Foods presently markets its products to the food, animal feed and industrial markets in North America, Europe and Asia.

### **CURRENT ACTIVITIES**

Parrheim Foods produces a variety of products through fractionation and classification.

The products currently marketed are:

- Starch
- Protein
- Fiber
- Flour



## ***FUNCTIONAL FOOD & NUTRACEUTICAL TECHNOLOGIES IN CANADA***

---

- Functional Foods
- Nutraceuticals

The current products developed are:

- Barley beta-glucan
- Starch Blocker
- Texturized Vegetable protein

### ***DESIRED INVESTMENT***

### ***PARTNERSHIPS***

Parrheim Foods is open to collaborative arrangements for joint technology development and marketing.

## **PURESOURCE NATURAL PRODUCTS**

7018 Hwy 24 South  
Guelph, ON  
Canada N1H 6J4

Telephone: (519) 837-2140  
Toll Free: (800) 265-7245 ext. 225  
Facsimile: (519) 837-1584  
Email: [matt.lebeau@puresource.ca](mailto:matt.lebeau@puresource.ca)  
Website: <http://www.puresource.ca>  
<http://www.herbalselect.com>  
<http://www.realgreen.ca>  
<http://www.simplyclean.ca>  
<http://www.alpheaca.ca>

Matt LeBeau - Sale Manager

### **NATURE OF BUSINESS**

PureSource, located in Guelph, Ontario, is a full service natural products distributor/manufacturer supplying retailers from British Columbia to Newfoundland with regular product delivery and natural product category management support. We also sell to Mexico, Europe, Sweden, USA and China.

PureSource has an inventory of over 6000 natural product and represents more than 200 product lines of manufacturers from around the world. Puresource is the manufacturer of these leading natural product brands: Herbal Select – herbal supplements, Purely Bulk – nutritional foods, Simply Clean – environmentally responsible household cleaning products, In Your Face – natural snacks and The Real Organic Bars (Real Berry, Real Green, Real Tropical), Alpheaca – PMS and Menopause formulas, Omega-Life – flax oil margarine with no trans fat or cholesterol, Just Juice – not from concentrate organic juice line.

### **MAJOR ACHIEVEMENTS**

- PureSource is the first Canadian natural products distributor to achieve ISO 9000 certification.
- PureSource has been recognized by Profit magazine as one of the fastest growing Canadian companies for 1997, 1998, 1999 (short-listed) and 2000.
- PureSource is the founding member of the Natural Health Products Technology Cluster which includes industry members from across Ontario.
- Opened their western warehouse in 2003 to provide superior service to the west.

### **COMPANY PROFILE**

|                               |   |
|-------------------------------|---|
| Sales Volume:                 | 50 million  |
| R&D Expenditure:              | < 2.5%  |
| Employees:                    | 125   |
| Facilities:                   | 45 000 sq. ft (distribution centre)<br>7,500 sq. ft. (production facility)<br>20 000 sq ft- calgary |
| Ownership:                    | Private   |
| Trade:                        | Exporting   |
| Export destinations:          | USA, Britain,<br>Sweden, Austrailia Mexico  |
| Total exports:                | Greater than \$500,000  |
| Percentage of sales exported: | < 2.5%  |

#### Key Alliances:

- University of Guelph, Human Nutraceutical Research Unit
- National Foundation for Hepatitis-C

- Bioriginal Food and Science Corporation
- Now Foods Inc.
- The Herb Works

### **COMPANY BACKGROUND**

PureSource was founded in 1989 to fill a need for better distribution of natural products to Canadian retail outlets. Their mission is to market innovative natural products that optimise health and wellness. The company will accomplish its mission through a vigorous commitment to quality and value in its products and services. Success is measured by superior customer satisfaction, market leadership and continued growth and development of the company's employees, customers and suppliers. Since its inception, the company has been actively promoting and creating the demand for natural health products while improving consumer access to these products.

PureSource is a member of the Canadian Health Food Association and the Canadian Association of Chain Drug Stores.

### **CURRENT ACTIVITIES**

PureSource selection of products include:

- Natural body care products
- Special dietary foods
- Aromatherapy
- Homeopathic Remedies
- Herbal Remedies
- Herbal Teas
- Organic grain beverages and juices
- Vitamins
- Natural and Organic Foods
- Natural and Organic Snacks
- Books & Literature

Distribution takes place from our main facility in Guelph, Ontario and our western warehouse in Calgary, Alberta. PureSource has a fleet of 4 climate controlled trucks serving the Ontario market and uses common carriers and couriers for other markets.

PureSource currently provides custom manufacturing services for some of our retail clients and has the capability to design and manufacture specialized natural products such as specialized herbal and nutritional supplements and meal replacement products.

### **MANUFACTURED BRANDS**

Puresource Manufactured Brands are among the leaders in the market place. Herbal Select Essential Fatty Acids are one of the fastest growing in the market. Real Organic Bars are the leading organic dried fruit snack bar. Omega-Life is the only trans-free, cholesterol-free flax oil margarine, offering variety to the marketplace. Alpea is the only PMS and Menopausal symptom solution that combines essential fatty acids and herbs. All of Puresource's Manufactured brands offer unique, quality products with the common desire to improve health and wellness. For more information about Puresource Manufactured Brands call 1-888-313-3369.

### **DESIRED INVESTMENT PARTNERSHIPS**

Marketing opportunities for PureSource's manufactured brands and custom manufacturing in major International markets.

Seeking distribution arrangements with Canadian manufacturers of natural products.

**RODRIGUES WINERY**

P.O. Box 98  
Whitbourne, Newfoundland  
Canada A0B 3K0

Telephone: (709) 759-3003  
Facsimile: (709) 759-2086  
E-mail: [hilary@rodrigueswinery.com](mailto:hilary@rodrigueswinery.com)  
Website: <http://www.rodrigueswinery.com>

Hilary Rodrigues/ Marie France  
Owners

Employees: 7  
Facilities: 7000 sq. ft.  
Ownership: Private  
Trade: Exporting  
Export destinations:  
• US  
• Japan

Total exports:  
Percentage of sales  
exported:

Key Alliances:

- Pure Berg Corporation
- Natural Newfoundland Nutraceutical

**NATURE OF BUSINESS**

Rodrigues Winery produces a selection of Blueberry, Partridgeberry, Lingonberry, Strawberry, and Newfoundland Plum wines as well as fruit juices recognized around the world for their taste and quality. The company also conducts distillery research & development.

**MAJOR ACHIEVEMENTS**

- Currently in the implementation stage of ISO 9002
- All wines are KOSHER : Blueberry Wines, Partridgeberry Wine, Barren's blend, Bakeapple Wine, Strawberry Wine, Plum Wine and Raspberry Wine, Plum Wine Blackcurrant Wine.  
Pear Brandy, Plum Brandy, Ice Berg Vodka  
Cloudberry, Blackcurrant, Cranberry Liqueurs  
Apple schnapps

**COMPANY PROFILE**

Sales Volume: \$600 000  
R&D Expenditure: \$80 000

**COMPANY BACKGROUND**

Rodrigues Winery is situated some 50 miles west of St. John's, the capital of Newfoundland. The Old Cottage Hospital was purchased by Hilary and Marie-France Rodrigues in 1986 when a modern clinic was built in the community.

The Old Cottage Hospital was renovated and presently houses one apartment, a provincial court and the Rodrigues Winery.

The Winery was established in November 1993. Their first offering was 300 cases of semi-sweet blueberry wine. This was a traditional wine that was made by many over the last 300 years. It was all sold out in less than a week. The Company is presently selling 15000 cases and expanding.

Rodrigues winery's aim is to use Newfoundland berries in their wines. Their wild berries (blueberries, partridgeberries, bakeapples) have not been subjected to pesticides. These unique berries produce wines that are consumer friendly and offer enjoyment without any environmental pollutants.

Facts about blueberries:

# **FUNCTIONAL FOOD & NUTRACEUTICAL TECHNOLOGIES IN CANADA**

---

Natural blue pigments are effective antioxidants and recognized disease fighters. Antioxidants are thought to delay aging. Naturally occurring antioxidants, such as those found in fresh fruits (blueberries) and vegetables appear to be part of one of the most promising substances for the delaying of the onset of some life shortening disease. Wild blueberries are a good source of dietary fiber, vitamins and minerals. They contain no cholesterol and are low in sodium.

Partridgeberries:

The partridgeberry (*Vaccinium vitis-idaea* L. var. *minus* Lodd) is a native small fruit harvested commercially for a variety of products. It grows in association with several heath plants on organic soils. The fruit is characterized by a high tannin and anthocyanin content and has a pH of 2.5.

## **CURRENT ACTIVITIES**

Rodrigues Winery wines are sold in Alberta, Ontario, Nova Scotia, New Brunswick, Newfoundland, Japan, and New York city metropolitan area.

The Company has started their distillery and will be producing liquors, vodkas and brandies from several fruits.

Rodrigues Winery is introducing new cultivars of Sea Buckthorn to Newfoundland. They currently have a small orchard; however, they will have 30 acres in 2001 and 75 acres by 2002. Products will include juices, wines, liquors, tablets, capsules, creams and oils. The company plans to have farmers growing 500 acres by 2005.

Rodrigues Winery has joined Pure Berg Corporation for the bottling of Iceberg water in Newfoundland to bottle half a million litres in 2001 and increase this to 10 million litres by 2005.

The Company has joined Natural Newfoundland Nutraceuticals and is setting up a plant for the production of:

- Power juices from Newfoundland Blueberries, Northern Cranberries, Sea Buckthorn, Golden Root and other products grown organically in other parts of Canada and globally
- Blueberry and Northern Cranberry tablets
- St. John's extract (tablets and tinctures)
- Sea Buckthorn tablets, oil capsules, creams

## **DESIRED INVESTMENT PARTNERSHIPS**

Rodrigues Winery welcomes alliances with groups that have similar goals i.e. Organic, Kosher, environmentally conscious and ethical goals.

We are starting our Pilot Plant for Natural Newfoundland Nutraceuticals . This will lead to the full production and R&D plant to be completed by Dec 2004

This fully fledged plant will cost \$8.5 Million and have Cutting edge technologies such as CCE and Refractance Window Dryers

## **SANGSTER'S HEALTH FOOD STORES**

2218 Hanselman Avenue  
Saskatoon, SK  
Canada S7L 6A4

Telephone: (306) 653-4481  
Facsimile: (306) 653-4688  
E-mail: sangsters@sangsters.com  
Website: www.sangsters.com

Roy Sangster  
President

### **NATURE OF BUSINESS**

As Canada's #1 health and vitamin store, Sangster's Health Centres occupies a unique position both in Saskatchewan and Canada. Sangster's has been in business since 1971 and franchising since 1978. Aside from success in the retail sector, Sangster's has developed its own line of nearly 300 top quality private label vitamins, minerals, herbs, and sports nutrition products which are marketed exclusively through Sangster's stores. Expansion in the 1990s has more than doubled the number of stores bearing the trusted Sangster's Health Centre logo. From a solid base in Saskatchewan, Sangster's has become a national brand name with stores from Halifax, NS in the east, to Nanaimo, BC in the west.

### **MAJOR ACHIEVEMENTS**

- Planning to open their 50th retail store this year, Sangster's was named one of the fastest growing companies in Saskatchewan

- Sangster's is featured in Canadian Natural Health Retailer and Canadian Business Franchise magazines
- Sangster's was a finalist for the SABEX Customer Service award
- Developed unique herbal & vitamin formulas

### **COMPANY PROFILE**

Sales Volume: \$1 - \$10 Million

R&D Expenditure: > \$200,000

Employees: Head Office: 13  
Retail Stores: 140

Facilities: Retail outlets 600-1000 sq. ft.  
Wholesale outlets 6,500 sq. ft.

Ownership: Private

Trade: Export ready, but not yet exporting

Key Alliances:

- Canadian Franchise Association
- Canadian Health Food Association
- Saskatchewan Nutraceutical Association
- Retail Council of Canada

### **COMPANY BACKGROUND**

In business since 1971, Sangster's Health Centres are franchised retail outlets that are operated by experienced Nutrition Consultants.

Sangster's Health Centres has a line of over 300 private label products that include:

- Vitamins
- Minerals
- Herbs
- Herbal Combinations
- Weight Management
- Sports Nutrition
- Natural Organic Foods

Sangster's also supply a large variety of other natural supplements and body care products to our customers.

Backed by more than 30 years in business, Sangster's Health Centre products are manufactured by State of the Art equipment where the water, air and sanitation are all part of the company's quality control.

The products are tested for quality and strength so that customers may rest assured that they are getting a Quality product. Sangster's vitamins, minerals and herbs are manufactured in Good Manufacturing Practices (G.M.P.) Facilities that are Government approved.

### **CURRENT ACTIVITIES**

Sangster's is active in research and development with the aim of expanding the private label line to include, for example, new sports nutrition products and anti-impotency herbs. The company is currently producing the information-driven "Natural Living" magazine for Sangster's customers. Sangster's is now accepting bids for international Master Franchises. The company has recently introduced a dynamic new store layout with a modern colour scheme and custom-designed cabinets and fixtures.

### **DESIRED INVESTMENT PARTNERSHIPS**

Sangster's Health Centres are committed to the growth and expansion of the franchise division. The company believes that to achieve this they must be dedicated to the franchisee in their policies and service. This will enable each and every franchisee to develop it's own potential, thereby allowing both parties to achieve their goals. Master Franchises are available for many countries.

Sangsters Health Centres is looking for contract manufacturers of vitamin and herbal products.

## **SEABUCKTHORN INTERNATIONAL INC. (SII)**

4154 Ponderosa Drive  
Peachland, BC  
Canada V0H 1X5

Telephone: (250) 767-6100  
Facsimile: (250) 767-9156  
E-mail: [info@seabuckthorn.com](mailto:info@seabuckthorn.com)  
Website: <http://www.seabuckthorn.com>

Susan McLoughlin, President and CEO  
Chuck Barton, VP Sales and Marketing

### **NATURE OF BUSINESS**

The mission of Seabuckthorn International Inc. is to distribute seabuckthorn products throughout God's world. The company is committed to preserving the integrity of this vital source. SII will maintain the integrity of seabuckthorn in products brought to the marketplace by careful production from crop to processing, to consumer products, which include the many unique benefits of this botanical resource.

Seabuckthorn contains high concentrations of the primary anti-oxidants as well as other nutrients. Some medical application of seabuckthorn includes:

- Acne, dermatitis, eczema, psoriasis, rosacea
- Peptic and duodenal ulcers
- Coronary adhesions
- Mucous membranes, gastro-intestinal tract
- Burns, scalds, cuts, tissue regeneration
- Solar and cancer radiation injuries
- Many other uses as proven by scientific research and clinical tests in Russia and China

The company is currently marketing a full line of cosmeceuticals containing seabuckthorn's healing synergies. The "inside out" skincare regimen includes the anti-aging and anti-oxidant activities of seabuckthorn tea, oil capsules and flavone capsules. The companies bulk sales division markets seabuckthorn berries, juice, bulk oil, dried fruit and powder to value added strategic alliances, in the functional food, dietary supplement, nutraceutical, cosmeceutical and pharmaceutical market places.

### **MAJOR ACHIEVEMENTS**

- The Company has emerged since 1989 as the leader in seabuckthorn development in the western hemisphere
- Confirmed that the Canadian climate is ideal to the development of seabuckthorn
- 1994 to 1999, the company achieved exclusive and inclusive territory sales in North America and Western Europe, with the National Seabuckthorn office of the Peoples Republic of China
- In 1995, research confirmed Biochemical components and Economic Analysis of orchard production
- Research project in 2003/2004 to determine the nutritional profile of seabuckthorn leaves
- In 2003/2004 the company began production of its own line of cosmeceuticals based on seabuckthorn's healing synergies.



**COMPANY PROFILE**

|                               |   |
|-------------------------------|---|
| Sales Volume:                 | \$ 0.25-0.5 M   |
| R&D Expenditure:              | \$ 1.2 M  |
| Employees:                    | 4 full time and up to 100 in prime harvest season                         |
| Facilities:                   | Production is contracted out.   |
| Ownership:                    | Private   |
| Trade:                        | Exporting   |
| Export destinations:          | USA, Taiwan, Japan, Poland, Malaysia, Australia, UK, New Zealand, Germany |
| Total exports:                | N/A   |
| Percentage of sales exported: | 60%   |

Key Alliances:

- Food Development Centre Manitoba
- National Seabuckthorn Office
- Peoples Republic of China – Water Resources Branch
- Agriculture Canada in British Columbia and Saskatchewan
- University of Saskatchewan – Biochemical
- PAMI – harvester
- University of Manitoba – harvester
- United Nations Development Branch
- Mountain Forum (Nepal)
- International Research and Training Center (Beijing)
- Chinese and Western Hospital (Beijing)
- Eleven major company alliances in North America, Western Europe and Australia

**COMPANY BACKGROUND**

Principals of predecessor company CSEL first encountered Seabuckthorn on the Loess Plateau, Yellow River, in the Peoples Republic of China in 1989 and imported Cultivars at that time.

In 1992, plant growing in Saskatchewan was discovered and in the same year the Research program was inaugurated in collaboration with Agriculture & Agri-Food Canada's PFRA Branch. The Saskatchewan government, Agriculture & Agri-Food Canada and CSEL provided funding for this program.

In 1997, consumer and other company exposure to seabuckthorn were instigated. In the same year, Seabuckthorn obtained a joint venture agreement with the Peoples Republic of China for technology exchange and quality of product to industrial standards of Good Management Practices in North America.

**CURRENT ACTIVITIES**

Seabuckthorn International Inc. continues to develop a Canadian farmer grower contact system of commercial plantation to supply the growing demand for seabuckthorn products.

The company continues in research and development into seabuckthorn's many valuable compounds and synergies in order to provide the most effective delivery system for seabuckthorn's nutritional powerhouse.

**DESIRED INVESTMENT PARTNERSHIPS**

Seabuckthorn International Inc. is seeking alliances for the development of consumer products and the financing of current and planned research and clinical trials showing benefits to cancer, pulmonary, skin, immune system, cardiovascular and senility.

## **SEMBIOSYS GENETICS INC.**

110, 2985 – 23 Avenue NE  
Calgary, Alberta  
Canada T1Y 7L3

Telephone: (403) 250-5424  
Facsimile: (403) 250-3886  
E-mail: [bauma@sembiosys.com](mailto:bauma@sembiosys.com)  
Website: <http://www.sembiosys.com>

Andrew Baum  
President & CEO

Maurice Moloney, Ph.D.  
Chief Scientific Officer

Jeffery L. Craig  
Vice President, Business Development

Jim Williams  
Director, Finance & Administration

Harm Deckers, Ph.D.  
Manager, Intellectual Property

### **NATURE OF BUSINESS**

SemBioSys Genetics Inc. is focused on the development and commercialization of innovative, highly profitable protein pharmaceuticals ("biologics") and other protein products that leverage the production, formulation and delivery benefits of the proprietary oilbody/oleosin technology platform. SemBioSys will commercialize products through partnerships with market leaders, combining their commercialization strengths and market access with SemBioSys' intellectual property, product pipeline and product development expertise.

The IAR (Ingredients, Additives and Reagents) business unit is focused on the development of ingredients and additives for the food, animal health and topical delivery markets and reagents for the protein purification market. SemBioSys has targeted these markets because they are not subject to the regulatory constraints of pharmaceuticals and products can be brought to market more quickly and at a lower cost.

Longer-term value is driven by SemBioSys' ability to address manufacturing, formulation and delivery challenges associated with the biologics market. SemBioSys' Stratosome™ Biologics System is the only transgenic system that addresses downstream purification as well as upstream bulk production. This allows SemBioSys to address the capital and production cost issues, both major determinants of value. The Stratosome™ Biologics System also promises formulation and alternative delivery advantages that will enable the commercialization of protein-based therapeutics that otherwise would not be economically viable.

### **MAJOR ACHIEVEMENTS**

- Received \$2.5 million (CDN) from AVAC Ltd.
- Granted U.S. Patents 6,509,453 and 5,856,452 entitled "Oil Bodies and Associated Proteins as Affinity Matrices", which broadly cover methods for the selective separation of desired target molecules from bulk process intermediates.
- Received Alberta Science and Technology Award for its pioneering efforts in plant biotechnology.
- Opened state of the art new facilities in NE Calgary, June 2001.
- Secured \$16.4 million in a Series A financing in Oct. 2000 led by Bay City Capital and Ventures West .
- Secured major equity investment from Dow AgroSciences in 1997.

## ***FUNCTIONAL FOOD AND NUTRACEUTICAL TECHNOLOGIES IN CANADA***

---

- Technology platform protected by broad patents in Canada, the USA, EC and Japan.
- Expressed a variety of recombinant proteins with the oleosin system.
- First two products scheduled for launch in 2004.

### **COMPANY PROFILE**

|               |  |
|---------------|--|
| Sales Volume: | Not Available  |
| R&D           | 50 - 74.9%   |
| Expenditure:  |  |
| Employees:    | 43   |
| Facilities:   | Corporate Offices and Pilot Facility and Research Facilities in NE Calgary |
| Ownership:    | Private  |
| Trade:        | Exporting  |

Key Alliances:  
Aqua Boundy Farms  
Syngenta

### **COMPANY BACKGROUND**

SemBioSys Genetics Inc. was formed in 1994 by Dr. Maurice Moloney in collaboration with University Technologies International (UTI), a technology transfer company wholly-owned by the University of Calgary. The Company currently has 43 employees, most of whom are involved in research and product development. It has 25,000 square foot new facility that incorporates the pilot plant, research laboratories and head office.

### **CURRENT ACTIVITIES**

SemBioSys' objective is to secure a leading worldwide position in plant-based recombinant protein products. SemBioSys will accomplish this by developing and exploiting creative technologies relating to gene expression, protein partitioning, purification and delivery of proteins and other biologics.

---

SemBioSys' technology platform is based on the discovery that recombinant proteins can be targeted to or captured on oilbodies, the structures used by oilseeds to store oil. SemBioSys' technology is protected by twelve issued U.S. patents (also filed worldwide) and several pending applications.

SemBioSys is uniquely positioned compared to all other plant-based pharmaceutical companies and offers dramatic savings in COGS and reduction of capital requirements when compared to cell-culture and fermentation-based production.

SemBioSys' commercialization strategy leverages proprietary technologies to develop cost effective manufacturing, purification and delivery processes with second parties in milestone based, value shared agreements.

In addition, SemBioSys is partnering its pipeline of proprietary proteins which are uniquely enabled by SemBioSys core technologies.

---

### **DESIRED INVESTMENT PARTNERSHIPS**

- Partnerships for development and licensing of the company's biopharmaceutical manufacturing, dermatology and delivery platforms; and
- Partnerships for development and licensing of the company's pharmaceutical, nutraceutical, animal feed and industrial proteins.

## **SISU INC.**

104A-3430 Brighton Avenue  
Burnaby, BC  
Canada V5A 3H4

Telephone: (604) 420-6610  
Facsimile: (604) 420-4892  
Toll Free: (800) 663-4163  
E-mail: [webmaster@sisu.com](mailto:webmaster@sisu.com)  
Website: <http://www.sisu.com>

Brian D. Edgar  
President

### **NATURE OF BUSINESS**

SISU manufactures and distributes hundreds of formulations including natural source vitamins, minerals, botanicals, enzymes, sports nutrition and homeopathics. These products contain quality natural ingredients and are free from artificial colourings, flavours and preservatives. SISU products are manufactured under strict Canadian Good Manufacturing Practices (GMP) and are recognized world wide for their superior quality and efficacy.

### **MAJOR ACHIEVEMENTS**

- SISU celebrated its 24<sup>th</sup> Anniversary in May 2004
- SISU was named supplier of the year by the Canadian Health Food Association West (1999 and 2000)
- SISU products are manufactured under strict Canadian Good Manufacturing Practices (GMP) and are recognized world wide for their superior quality and efficacy.

### **COMPANY PROFILE**

|                               |  |
|-------------------------------|--|
| Sales Volume:                 | \$10 - 50 million  |
| R&D Expenditure:              | \$10 - 50 million  |
| Employees:                    | 100  |
| Facilities:                   | N/A  |
| Ownership:                    | Private  |
| Trade:                        | <input checked="" type="checkbox"/> Trading<br><input checked="" type="checkbox"/> Exporting |
| Export destinations:          |  |
| Total exports:                | <input checked="" type="checkbox"/> \$500,001 - \$ 1 Million                                 |
| Percentage of sales exported: | <input checked="" type="checkbox"/> 2.5 - 4.9 %  |

### **COMPANY BACKGROUND**

For almost 25 years, SISU has developed and manufactured innovative vitamins and natural health supplement products reflecting the latest advances in health and wellness.

SISU was developed as an arm of Vancouver B.C.'s premier holistic pharmacy, Finlandia. Both were founded by pharmacist Harlan Lahti, renowned in the natural health community as an expert in nutritional and botanical medicine. SISU began by specializing in hypoallergenic supplements. Harlan had suffered from allergies for many years, and was disappointed with the conventional treatments and remedies available. His own formulas were quickly recognized as both innovative and therapeutic.

Before long, the SISU product line expanded to include other, highly specialized formulations. Within a short period, the company outgrew its space within the pharmacy.

In 1988, SISU moved to a larger facility. The business continued to grow, and in 1995, moved into its present location in Burnaby, British Columbia. The new location accommodates its corporate headquarters with its research, development, manufacturing and distribution facilities, and will allow for future expansion.

### **CURRENT ACTIVITIES**

Today, SISU distributes over 150 formulations which are guaranteed to comply with Canadian Good Manufacturing Practices - quality control standards that are among the highest in the world.

SISU currently services health food, natural pharmacy, natural grocery and professional accounts across Canada, with limited export sales to Europe, the United States, Asia and the Middle East.

### **DESIRED INVESTMENT PARTNERSHIPS**

Starting in Q4 2004 we intent to rapidly increase export sales. We will seek strong local partners in every export country capable of marketing our products manufactured in Canada under the SISU brand. We will offer preferred pricing and a long term brand license to our export partner.

## ***SUBE-PREBIOTICS INC.***

368 Notre Dame West, Suite 80  
Montreal, Quebec  
H2Y 1T9

Telephone: (514) 281-8338  
Facsimile: (514) 281-0338  
E-mail: [alexandra@preobiotics.com](mailto:alexandra@preobiotics.com)  
Website: [www.preobiotics.com](http://www.preobiotics.com)

Contact: Alexandra Bailly  
Title: Marketing Support

### **NATURE OF BUSINESS**

PreoBiotics is a Canadian biotechnology company, dedicated to research, development and commercialization of chicory-based functional foods (chicory extract, cappuccino-like instant beverages, chocolates) and nutraceutical products (chicory capsules and droppers) in North America.

Chicory has been part of the human diet thanks to its beneficial effects on gastro-intestinal health. PreoBiotics' mission is to re-introduce the plant, with all of its *rooted* secrets, as an integral part of one's healthy diet.

### **MAJOR ACHIEVEMENTS**

- We are currently developing gourmet health bars and beverages - trademarked under the name Chicolate®.

### **COMPANY PROFILE**

Sales Volume: \$250,001 - \$500,000

R&D Expenditure:  
Employees: 8  
Facilities:  
Ownership: Private  
Trade: Exporting  
Total exports: \$250,001 - \$500,000  
Percentage of sales exported: 50 - 74.9%  
Export destinations: USA

Key Alliances:

- Medicaler Canada Inc., subsidiary of Les Laboratoires Medicaler, S.A., France

### **COMPANY BACKGROUND**

PreoBiotics is positioned to exploit the benefits of the components, hence properties, of chicory by the development and commercialization of health-oriented, new and higher-value applications of the plant – for human and animal use.

Foods, beverages and nutraceuticals will cater to the baby boomer generation and to the health conscious community. Animal applications target the equine and pet food industry.

PreoBiotics intends to develop a wholesale presence starting in Quebec, and northeastern United States, then across all of North America.

### **CURRENT ACTIVITIES**

PreoBiotics is in the process of forming a joint venture with its supplier, a worldwide known leader in chicory production.

We are currently evaluating whether there exists any potential for growing chicory on Canadian soil.

Pending the launch of our consumer product line *Preo*, we are developing strong Public Relations and Marketing programs.

***DESIRED INVESTMENT***

***PARTNERSHIPS***

We are seeking investors to:

- fund working capital
- purchase technology in form of hardware and software for the Internet and for Marketing purposes
- to advance our research and development

We are also interested in strategic partnerships for the distribution of our natural health products line across Canada.

## **SWISS HERBAL REMEDIES LTD.**

35 Leek Crescent  
Richmond Hill, Ontario  
L4B 4C2

Telephone: (905) 886-9500  
Facsimile: (905) 886-5434  
E-mail: none  
Website: <http://www.swissherbal.ca>

Mr. Jim Maranda  
President

### **NATURE OF BUSINESS**

Swiss Herbal Remedies formulates, markets and distributes natural source vitamins, mineral, herbal supplements and cosmetics. The company also does private labelling of vitamins and herbal supplements.

### **MAJOR ACHIEVEMENTS**

- Widest range of nutritional and herbal supplements in Canada
- Over 550 products on the market
- Developed website that offers comprehensive product and health information
- Established National Sales Force
- Brand Names *Swiss Natural Sources*, *Phytolipids* and *Thera-Pro Packaging* are registered trademarks of Swiss Herbal Remedies Ltd.

### **COMPANY PROFILE**

|                               |  |
|-------------------------------|--|
| Sales Volume:                 | \$ > 40 M  |
| R&D Expenditure:              | \$ 1 M   |
| Employees:                    | 142 (4 in R&D)   |
| Facilities:                   | 36, 000 sq.ft. head office in Richmond Hill<br>Warehouses in Montreal and Vancouver  |
| Ownership:                    | Private  |
| Trade:                        | X Trading<br>X Exporting   |
| Export destinations:          | Korea, Czech Republic, Slovakia, China, Saudi Arabia, Iran, Nigera, Trinidad & Tobago, USA, Greece, Cyprus, Hong Kong, Singapore |
| Total exports:                | X \$1 - \$10 Million   |
| Percentage of sales exported: | X 5 - 9.9 %  |

### **COMPANY BACKGROUND**

Swiss Herbal Remedies was founded in 1962 by Rolf Zimmerman with the vision of improving the quality of life through the advocacy of natural remedies. All their products are tested for quality, potency, purity and stability from the raw material to the finished product stage and meet or exceed GMP standards. Swiss Herbal's Quality Control department is staffed by highly qualified personnel from the fields of nutritional science and naturopathic medicine.



# ***FUNCTIONAL FOOD & NUTRACEUTICAL TECHNOLOGIES IN CANADA***

---

The company has a National Sales force, selling its products in retail health food stores, pharmacies and nutritional outlets across Canada. Swiss Herbal Remedies has the distinction of having more supplement products on the market than any other company in Canada, with over 550 products to date. Products are exported to markets worldwide. The company also holds trade and public seminars, delivering information on its products and on topics related to nutrition and health.

## **CURRENT ACTIVITIES**

Swiss Herbal produces a vast array of products and is continually bringing products onto the market.

All their vitamins and supplements do not contain preservatives, artificial colour, artificial flavour, starch, added salt or corn and are gluten-free, which makes them suitable for people with special dietary needs. Products are manufactured in various forms including tablets, caplets, liquids, powders and lozenges.

Some examples of their products are:

- *Echinacea augustifolia/purpurea*: herbs used to boost the body's immune system to prevent or fight colds and flu
- *Evening Primrose Oil*: an excellent source of Gamma Linolenic Acid (GLA); may be beneficial in treating menstrual disorders, skin disorders, multiple sclerosis, joint pain, weight loss and high blood pressure
- *Feverfew*: a traditional herbal medicine used to prevent migraine headaches
- *Glucosamine*: an effective treatment for degenerative joint diseases as it serves as the fundamental building block for glycosaminoglycans in cartilage

- *MSM*: supplementation with organic sulfur compound has been shown to alleviate pain and inflammation associated with musculoskeletal disorders, such as rheumatoid and osteoarthritis, gout and tendinitis
- *St. John's Wort (Hypericum perforatum)*: a herbal remedy that alleviates mild to moderate depression, nervous disorders, insomnia, neuritis, and anxiety

## **DESIRED INVESTMENT PARTNERSHIPS**

Swiss Herbal Remedies is interested in negotiating contract manufacturing agreements for private label nutritional and herbal products, as well as export possibilities.

**TAIGA BIOACTIVES INC.**

238-111 Research Drive  
Saskatoon, SK  
Canada S7N 3R2

Telephone: (306) 651-5331  
Facsimile: (306) 651-5333  
E-mail: dhrytzak@innovationplace.com  
Website: www.taigabioactives.com

Don Hrytzak  
President

**NATURE OF BUSINESS**

Taiga BioActives Inc. is involved in nutraceutical & functional foods research, production and processing.

Over the past four years, almost \$500,000 of research has been conducted by Taiga BioActives proving the anti-herpes properties and developing intellectual properties that would be used for patenting and market entry.

**MAJOR ACHIEVEMENTS**

- The full line of Taiga products are safe and scientifically tested for bioactivity, and do not contain artificial perfumes, colors or preservatives.

**COMPANY PROFILE**

|                  |           |
|------------------|-----------|
| Sales Volume:    | N/A       |
| R&D Expenditure: | \$500,000 |
| Employees:       | 3         |

Facilities: Taiga Laboratories is a wholly owned subsidiary of Taiga BioActives Inc. headquartered out of Saskatoon.

Ownership: Private

Key Alliances:

- Golden Acres Garden Centers (Calgary)
- POS Pilot Plant (Saskatoon)
- Praire Plant Systems (Saskatoon)
- Veterinary Infectious Disease Organization

**COMPANY BACKGROUND**

Taiga BioActives Inc. was incorporated in 1994 as Termidor Corporation Inc. to develop marketable products from various European Medicinal plants known to Mr. John Korner, the CEO and founder of the company.

**CURRENT ACTIVITIES**

Taiga BioActives Inc. is developing an anti-viral and anti-bacterial product, which will be sold into pharmaceutical and nutraceutical markets.

Taiga is currently researching, developing and marketing natural bioactive products for the pharmaceutical, nutraceutical, and cosmetic sectors. In addition to the herpes remedy, Taiga is conducting studies on a number of exciting, new products. A root extract from the Korner plant has shown very positive results in-vitro as an anti-bacterial ointment. Clinical trials on an appetite suppressant for the pet industry are concluding, and test market on cholesterol reducing oat bran is set to begin.

The products currently offered are:

# ***FUNCTIONAL FOOD & NUTRACEUTICAL TECHNOLOGIES IN CANADA***

---

- Termidol - V: an effective treatment for Herpes Simplex Virus (HSV)
- Termidol-S : an appetite suppressant for the pet industry.
- Ultrabran: an oat bran that concentrates the B-glucan content in the bran

## ***DESIRED PARTNERSHIP INTERESTS***

Taiga is currently seeking new investment capital to develop its products and enter them in the market. The company is also interested in establishing partnerships with distributors and manufacturers of cold sore remedies and pet products.

## **VACCINIUM TECHNOLOGIES INC.**

P.O. Box 636, Stn. "A"  
Fredericton, NB  
Canada E3B 5A6

Telephone: (506) 444-2444  
Facsimile: (506) 444-5662  
E-mail: jargall@fundy.net  
Website:  
[http://www.bioatlantech.nb.ca/business\\_vaccinium.html](http://www.bioatlantech.nb.ca/business_vaccinium.html)

John Argall  
COO

### **NATURE OF BUSINESS**

Vaccinium Technologies Inc.'s (VTI) mission is to generate and consolidate proprietary technologies and expertise in the extraction, characterisation, stabilization, modification and enhancement of the flavonoid constituents of the wild blueberry and other Vaccinium fruit, for commercial application in health functional and/or other industrial uses.

The company benefits from the leadership of a progressive executive, and a Board of Directors who are experienced in research, development and commercialization of new technologies, the health functionality of foods, and the production and processing of fruit. VTI also benefits from a network of scientific affiliations.

### **MAJOR ACHIEVEMENTS**

- Production of standardized flavonoid fractions
- Bio-transformation testing

- VTI has coupled access to fruit, with technology aimed at extracting, enhancing and stabilizing the fruit's flavonoid constituents

### **COMPANY PROFILE**

|                  |                      |
|------------------|----------------------|
| Sales Volume:    | < \$50,000           |
| R&D Expenditure: | \$ 0.1M (2001)       |
| Employees:       | 2                    |
| Facilities:      | Outsource activities |
| Ownership:       | Private              |
| Trade:           | Not Exporting        |

#### Key Alliances:

- Agriculture and Agri-Food Canada
- University of Prince Edward Island

### **COMPANY BACKGROUND**

Vaccinium Technologies Inc. is a start up company based in New Brunswick, Canada that offers access to wild blueberries and fruit derivatives, as well as technology and expertise in fruit production and processing for nutraceutical and other applications.

Wild blueberries and related fruit are a strong source of flavonoids, which are potent natural antioxidants. Building on the region's global exclusivity in wild blueberry production, VTI has coupled access to fruit, with technology aimed at extracting, enhancing and stabilizing the fruit's flavonoid constituents.

## **CURRENT ACTIVITIES**

Centred primarily on research in the health functionality of wild blueberry and other Vaccinium fruit, the research and development in progress includes:

- Research aimed at extracting, enhancing, characterising and stabilizing the healthful components of wild blueberries and related fruit
- Research collaborations with Agriculture and Agri-Food Canada, regional universities and international research organizations
- Alliances with several international research organizations in the elaboration of the health functionality of wild blueberries and related fruit

## **DESIRED INVESTMENT PARTNERSHIP**

VTI offers consolidated expertise in flavonoid technologies, and seeks collaborations in food, beverage and nutraceutical applications of these flavonoids.

Project partnerships are open to any group whose primary interest is in gaining value from fruit-based flavonoids. Partnership growth is encouraged.

## **VITA HEALTH PRODUCTS**

150 Beghin Avenue  
Winnipeg, Manitoba  
Canada R2J 3W2

Telephone: (204) 661-8386

Facsimile: (204) 663-8386

E-mail: [esmith@leiner.com](mailto:esmith@leiner.com)

Website: <http://www.vitahealth.ca>

Mr. Eric Smith  
President

### **NATURE OF BUSINESS**

Vita Health is Canada's largest manufacturer of private label vitamins, minerals, herbal products, dietary supplements and OTC's. The company manufactures and packages private label supplements and pharmaceuticals for its national retailer customers and contract manufacturers for non-retail and pharmaceutical companies.

In addition, Vita Health markets two consumer brands: Elite (Natural Health Products) and Stanley Brand (OTC's). Vita Health Products maintains an in-house quality control laboratory to meet and exceed regulatory standards as well as Good Manufacturing Practices (GMP) under the World Health Organization (WHO).

### **MAJOR ACHIEVEMENTS**

- Over 60 years experience in health products and pharmaceuticals (Founded in 1936)
- Established a manufacturing division in 1974
- More than doubled manufacturing and warehousing facilities over the last 12 months
- 

- Introduced leading-edge standardized herbal caplets to the Canadian market in 1996
- Merged with Leiner Health Products of Carson, California in 1997 (Leiner is the world's largest manufacturer of vitamin, nutritional and herbal supplements)
- Purchased Stanley Pharmaceuticals of Vancouver, BC in December 1999.

### **COMPANY PROFILE**

Sales Volume: \$ > 130 M

R&D Expenditure: \$ > 0.8 M

Employees: 460

Facilities: - 185,000 sq.ft. cGMP manufacturing plant & 35,000 sq ft distribution center in Winnipeg

Ownership: Leiner Health Products Inc.

Trade: Not Exporting

Key Alliances:

- Leiner Health Products Inc. (Carson California)
- Apotex Inc. (Toronto, ON)

### **COMPANY BACKGROUND**

From a single retail health food store founded by G.W. Seier in 1936, the company has become Canada's largest manufacturer of private label OTC and Natural Health Products.

**CURRENT ACTIVITIES**

Vita Health has established an aggressive focus on new product development, driven by collaboration of the company's marketing, R&D departments and external partners.

**DESIRED INVESTMENT PARTNERHSIPS**

Joint product development with value-added, research-based raw material suppliers.

# **Medicinal Products**

**Alphabetical listing of companies dealing with medicinal products**



## MEDICINAL PRODUCTS

Increasingly, traditional medicines derived from plants, herbs and other natural sources are being sought as alternatives to modern medicine and pharmaceuticals. Canada's vast forested regions are an abundant source of wild herbs, and with a large reserve of fertile land, Canada is an ideal location for the cultivation of a wide variety of medicinal herbs. Canadian companies are active as growers and processors of herbs and other medicinal plants. Companies also conduct research on the medicinal properties of new herb varieties and formulations.

Canadian companies are involved in the large scale cultivation of herbs such as ginseng and echinacea. These raw materials are supplied to manufacturers for processing into various herbal products. Canadian companies specialize in the standardization of herb and functional plant extracts. Companies have developed the extraction, isolation and purification expertise necessary to manufacture herbal products to pharmaceutical standards. Also, companies have developed and refined analytical methods to verify the potency and bio-activity of herbal extracts and other compounds.

Canadian companies are developing new technologies to transform plant and animal biomass into beneficial health care products. Companies are manufacturing medicinal products from fish liver, shark cartilage, and other plant, animal and marine by-products. Transgenic and recombinant protein technologies have been developed that provide manufacturing alternatives for vaccines and human and animal pharmaceutical proteins.

In Canada, there are numerous collaborations between companies and government, university and other research institutions for the purpose of commercializing scientific research in the nutritional sciences. Widespread recognition of the link between diet and disease has led to partnerships for research on the role of specific foods in the development, treatment and prevention of diseases such as cancer, diabetes, hypertension and cardiovascular disease.

Selected companies that use advanced technologies to produce medicinal products include:

- Alta Natural Herbs & Supplements Ltd.
- Ashbury Biologicals Inc.
- Atrium Biotechnologies Inc.
- Ben-Don Innovations Inc.
- Blue Hills Herb Farm
- British Columbia Functional Food & Nutraceutical Network
- Canadian Emu Oil Limited
- Canadian Phytopharmaceuticals Corp.
- Ceapro Inc.
- Chai-Na-Ta Corp.
- Coulee Pickings Ltd.
- CV Technologies Inc.
- Enviro-Test Laboratories
- Forbes Medi-Tech Inc.
- Fortius Natural Nutrition
- Fytokem Products Inc.
- Gelda Scientific Ltd.
- Gourmet Nutrition F.B. Inc.
- Immunotec Research Ltd.
- Innovative Consulting Solutions Inc.
- Jamieson Laboratories Ltd.
- KGK Synergize Inc.
- Lallemand Inc.
- Mekiwin Corporation
- Natural Factors Nutritional Products Ltd.
- Naturally Nova Scotia Health Products Ltd.
- Nature's Formula Health Products Ltd. Network
- Nutri-Chem Pharmacy
- Pharmascience Inc.
- Phytogen Life Science Inc.
- Puresource Natural Products
- Sangster's Health Food Stores
- Seabuckthorn International Inc.

- SemBioSys Genetics Inc.
- Sisu Enterprises Co. Inc.
- Swiss Herbal Remedies Ltd.
- Taiga BioActives Inc.
- Vita Health Products

## **ALTA NATURAL HERBS & SUPPLEMENTS LTD.**

1148-20800 Westminster Highway  
Richmond, BC  
Canada V6V 2W3

Telephone: (604) 303-1131  
Toll free: (800) 535-7502  
Facsimile: (604) 303-1132  
E-mail: [info@alta-natural.com](mailto:info@alta-natural.com)  
Website: <http://www.alta-natural.com>

Mr. Greg Shafransky  
Vice President, Sales

### **NATURE OF BUSINESS**

Alta Natural Herbs & Supplements Ltd. is an established manufacturer of nutraceuticals (herbs, supplements & marine products) with a product range of over 170 items. The company is the first Canadian manufacturer of shark products, and is unique in its proprietary activities that include sourcing, processing, sterilization and encapsulating, bottling, marketing, and sales.

The company is also engaged in the research and development of leading-edge bio-nutraceuticals and phytomedicines for the treatment and care of chronic degenerative and immune related diseases such as hepatitis C, AIDS, cancer and diabetes. The company has already developed its first biotech product, HEPATICO, for the treatment of Hepatitis C, cirrhosis and liver cancer.

### **MAJOR ACHIEVEMENTS**

- Developed its first biotechnology product, HEPATICO for the treatment of Hepatitis C, cirrhosis and liver cancer.
- Export sales now account for 80% of corporate revenues
- Commenced distribution of its products in China in 1997
- Member of the Canadian Health Food Products Association
- Completed a distribution contract with Pharpas, an Italian wholesale health company
- The first Canadian manufacturer of shark products
- Increased the *Alta Natural* product by 400% to include 170 products
- Now has a total of 170 products in its product line

### **COMPANY PROFILE**

|                               |  |
|-------------------------------|--|
| Sales                         | \$ 1-10 M (1999)   |
| Volume:                       |  |
| R&D                           | \$ 1.5 M (1999)  |
| Expenditure:                  |  |
| Employees:                    | 20   |
| Facilities:                   | 14,000 sq.ft. office, manufacturing, and state-of-the-art packaging facilities |
| Ownership:                    | Public Canadian Venture Exchange (CDNX:AMS)                                    |
| Trade:                        | Exporting  |
| Export destinations:          |  |
| Total exports:                | N/A  |
| Percentage of sales exported: | N/A  |

#### Key Alliances:

- Health Circle (Hong Kong)
- Meditch (Germany)
- Pharpas (Italy)
- China Academy of Traditional Chinese Medicine (China)
- Russian Academy of Sciences (Russia)

# **FUNCTIONAL FOOD & NUTRACEUTICAL TECHNOLOGIES IN CANADA**

---

- Georgian Academy of Sciences (Georgia)
- Shenzhen Health Biotechnology Corporation Ltd. (China)

## **COMPANY BACKGROUND**

Alta Natural Herbs & Supplements was formed in 1993 to manufacture and distribute shark's cartilage. In 1996, Alta Natural acquired Nature's Pride Marketing Ltd., a producer of sea-based natural and herbal products, and became the manufacturer of *Cartilago*™ shark cartilage and shark liver oil. The *Alta Natural* line was created and now includes over one hundred and seventy carefully selected herbs and food supplements. The company is well positioned to rapidly penetrate and expand sales in the nutraceutical industry. Currently, Alta Natural has strategic working relationships in the U.S., Europe, Asia, Latin America, and the Middle East. Future plans include: the opening of a manufacturing and distribution centre in California, formal distribution contracts in Asia, further penetration of the North American and European markets, and strengthening existing ties in Brazil and Costa Rica. The company has recently moved into the area of biotechnology, specializing in the development of phytomedicines for the treatment and cure of degenerative and immune related diseases.

## **CURRENT ACTIVITIES**

Alta Natural Herbs & Supplements manufactures and distributes specialty shark products as well as other herbal and sea-based products. Besides its specialty products, the *Alta Natural* line includes: essential oils, standardized herbal extracts, single herbs & botanicals, and herbal blends.

- The *Cartilago*™ shark cartilage food supplement is currently marketed in Canada, Asia, Europe and the USA.
- Its manufacturing base has recently expanded to include the production of other specialty products: chitin, chitosan and glucosamine.

The company's strategy is to place an increased emphasis on high quality products, proven bio-efficiency of the active ingredients, and safety standards.

Alta Natural Herbs & Supplements has recently formed a Biotechnology division to research, develop and manufacture bio-nutraceuticals and phytomedicines for the treatment and cure of chronic degenerative and immune related diseases.

## **DESIRED INVESTMENT PARTNERSHIPS**

Alta Natural Herbs & Supplements Ltd. is seeking partners for the commercialization of its products and organizations interested in financing company activities.

## **ASHBURY BIOLOGICALS, INC.**

4700 Keele St.  
Farquharson Bldg.  
Toronto, ON  
Canada M3J 1P3

Telephone: (416) 736-5585  
Toll free: (800) 567-5060  
Facsimile: (416) 736-5846  
E-mail: ashbury@dalton.com

Mr. Mike O'Connell  
Project Manager

### **NATURE OF BUSINESS**

Ashbury Biologicals Inc. is a developer, manufacturer and distributor of standardized, certified natural medicines. With a view to market over-the-counter and prescription products, their research spans the development of botanical medicines for both the prevention and treatment of major disease states. Using modern technical advances in isolation, identification, and purification techniques, Ashbury is able to develop homogeneous standardized plant extracts, while still researching and developing the less refined forms of plant-derived products for medicinal use. Single chemical entity compounds and combinations of compounds derived from herbal/botanical origins are in development.

Ashbury currently has over 20 products in various stages of development including TANACET 125, an over-the-counter product for migraine prevention that is marketed by Pharmascience Inc.

### **MAJOR ACHIEVEMENTS**

- Developed the first over-the-counter product approved in Canada for migraine prevention (TANACET 125).
- Obtained regulatory approval in Canada for fifty (50) over-the-counter herbal medicines
- Filed key patents for product improvements based on botanicals

### **COMPANY PROFILE**

|                               |                                      |
|-------------------------------|--------------------------------------|
| Sales Volume:                 | \$ 1 - 5 M                           |
| R&D                           | \$ >1 M                              |
| Expenditure:                  |                                      |
| Employees                     | 5                                    |
| Facilities:                   | 5, 000 sq.ft. (laboratories, office) |
| Trade:                        | Exporting                            |
| Export destinations:          |                                      |
| Total exports:                | 1-50,000                             |
| Percentage of sales exported: | 0%                                   |
| Ownership:                    | Private                              |

#### Key Alliances:

- Dalton Chemical Laboratories
- Pharmascience Inc.

### **COMPANY BACKGROUND**

Ashbury was founded in 1992 and is located on the York University campus in Toronto, Ontario. Ashbury's affiliation with Dalton Chemical Laboratories, a company with considerable expertise in drug discovery and synthetic chemistry, has resulted in a strong research and development division. With a view to market products in the over-the-counter and prescription categories, Ashbury continues to be a leader in the development of new natural drug products.

- Analytical method development as well as contract research and chemical analyses for pharmaceutical companies who are developing natural product-based drugs
- Licensing products based on natural materials
- Distribution of natural product medicines in North America
- Joint marketing agreements to target the North American market
- Financing

### **CURRENT ACTIVITIES**

Ashbury Biologicals is active in the research and development of novel medicinal products. Over-the-counter products in development include:

- an anti-nauseant
- sleep aid
- anti-septic/anti-bacterial skin treatment
- acne treatment
- anti-fungal
- upper respiratory products
- physical endurance enhancer
- treatment for nervous disorders

Prescription products in development include:

- treatment for acute and chronic liver inflammation
- treatment for benign prostate hypertrophy
- anti-depressant
- immunostimulant

### **DESIRED INVESTMENT**

### **PARTNERSHIPS**

Ashbury is interested in collaborations in the following areas:

- Research into, and product development of, traditional botanical and herbal medicines

## **ATRIUM BIOTECHNOLOGIES INC.**

1405 boulevard du Parc-Technologique  
Quebec, QC  
Canada G1P 4P5

Telephone: (418) 652-1116  
Facsimile: (418) 652-0151  
E-mail: [atrium@atrium-bio.com](mailto:atrium@atrium-bio.com)  
Website: <http://www.atrium-bio.com>

Dr. Serge Yelle  
Director, Business Development

### **NATURE OF BUSINESS & COMPANY BACKGROUND**

Atrium develops and markets nutritional supplements as well as active ingredients and fine chemicals intended for the cosmetics, pharmaceutical, fine chemical and nutritional industries. From its Canadian head office, Atrium focuses on developing and marketing cosmetic ingredients and nutritional products in over 20 countries worldwide. Through its European subsidiary Unipex, Atrium provides innovation support, importation and logistics services for a variety of specialty products in the Company's four business areas. Atrium's objective is to provide its customers with an added value that will make them more competitive on their respective markets.

### **MAJOR ACHIEVEMENTS**

- In July 2001, Atrium announced the acquisition of the French company Unipex. The transaction is valued at some \$20 million.

- In 2000, SGF Soquia Inc. and Fonds de solidarité FTQ invested a total of \$ 20 million in Atrium Biotechnologies to help fund acquisitions of new technologies or companies in the cosmetics and nutrition ingredient areas
- Development of many high value active ingredients, one of them being the MDI Complex that is widely used in the cosmetic industries.

### **COMPANY PROFILE**

|                               |   |
|-------------------------------|---|
| Sales Volume:                 | \$ 75 - 100 M   |
| R&D Expenditure:              | n/a   |
| Employees:                    | 60 (25 in Canada)   |
| Facilities:                   | 2,700 sq. meters research laboratory and production unit at GLP and GMP standards<br><br>2 Wharehouses one in the USA and 1 in Europe |
| Ownership:                    | Private   |
| Trade:                        | Exporting   |
| Export destinations:          | 22 countries around the world (40% USA, 20% Japan)  |
| Total exports:                | \$75 to 100 Million   |
| Percentage of sales exported: | > 95%   |

## **CURRENT ACTIVITIES**

Atrium Biotechnologies is divided into three areas:

1. The Dietary Supplements area develops, manufactures, and distributes a variety of natural products extracted from animal, plant and marine biomass. Currently available products include:

- CarTCell: Molecular extract of antiangiogenic life proteins from shark cartilage
- NatCell: Molecular extract of fetal growth factors of bovine origin
- NatCell: Biotechnological food supplements
- Cartilade: Top quality shark cartilage powder with proven activity
- Biotherapies: Top quality nutraceuticals for health care professionals
- Dr. Chain: Biotechnological mushroom extracts and oriental medicine formulas

These products are available under Atrium's brand name or private labels. Most products are sold through health professional networks in a frozen state, in order to preserve the integrity of their active peptides and molecules. The active ingredients are also being incorporated into nutritional supplements commercialized by international partners, providing added value to their products.

2. The Cosmetics area develops, manufactures and markets natural active ingredients that help attenuate signs of aging. The ingredients that have been developed include:

- PRE Complex (Protein Extract), a natural protein concentrate extracted from animal biomass to help balance certain natural functions of the skin.
- MDI Complex (Marine Derivative Isolates), a natural concentrate from marine extracts, designed to help maintain the structure and appearance of young and healthy skin.

These active ingredients are incorporated in different cosmetic formulations for professional and retail distribution networks.

3. Unipex in Europe:

Unipex is specialized in value added services of importation, in supporting innovation, and in distribution raw materials and high-end brand-name additives for multinational corporations.

## **DESIRED INVESTMENT**

### **PARTNERSHIPS**

Atrium is currently seeking to establish:

- Partnership agreements to develop new active ingredients, ideally from marine or plant biomass, aiming at their incorporation in nutritional supplements and/or cosmetic formulations
- Distribution or licensing agreements for the mass market or specialized health professional market of dietary supplements and cosmetic active ingredients
- Co-development agreements to incorporate Atrium's active ingredients in actual partner's products lines



## ***BEN-DON INNOVATIONS INC. (BDI)***

13-1724 Quebec Ave.  
Saskatoon, SK  
Canada S7K 1V9

Telephone: (306) 931-2610  
Facsimile: (306) 931-6610  
E-mail: info@bdi.sk.ca  
Website: <http://www.bdi.sk.ca>

Craig Nimegeers  
Managing Partner

### **NATURE OF BUSINESS**

Ben-Don Innovations Inc. is an engineering consulting firm founded in 1998 to help research, develop and market innovative technology. BDI specializes in machine design and manufacturing processes. Employees have extensive agricultural, mechanical, and manufacturing engineering backgrounds, which enables the company to provide services on a variety of technical projects. These services range from design and analysis, to 3D CAD and drafting, to complete turnkey product development solutions.

### **MAJOR ACHIEVEMENTS**

BDI is continually being recognized for the distinct service it provides, and was recently awarded the 2001 Business Development Bank of Canada (BDC) Young Entrepreneur of the Year Award for Saskatchewan.

- BDI uses the latest computer-aided design and analysis tools to develop machines that integrate mechanical and biological systems

### **COMPANY PROFILE**

|                      |                            |
|----------------------|----------------------------|
| Sales Volume:        | \$500,000 - \$1 million    |
| R&D Expenditure:     | \$50,000                   |
| Employees:           | 9                          |
| Facilities:          | Office, lab, research farm |
| Ownership:           | Corporation                |
| Trade:               | Exporting / Importing      |
| Export destinations: | United States, Europe      |
| Total exports:       | < \$50,000                 |

### **COMPANY BACKGROUND**

Employees have extensive agricultural, bio-system and mechanical engineering backgrounds, which enables the company to provide services on a variety of technical projects. BDI uses the latest registered computer-aided design technologies such as Solidworks 2000, and employs quality assurance practices.

### **CURRENT ACTIVITIES**

BDI is currently involved in a number of private sector and public projects related to the development of machines and systems. Generally, BDI's engineering services are contracted to companies who require research & development of new products. In addition, BDI consults with processing companies to research and analyze current process equipment for integration into their facilities. We develop the machines and processes needed to make industry more efficient.

## ***FUNCTIONAL FOOD & NUTRACEUTICAL TECHNOLOGIES IN CANADA***

---

A three-year project began in 2000, sponsored by Saskatchewan Agriculture & Food, to develop flowering herb harvesting machine systems. The project goal is primarily to develop a flower and forage crop harvester and secondly the development of value-added processes such as separation & improving quality.

A number of confidential consulting projects are currently underway where BDI is developing needed technology for current problems. In many cases, the results of the project are immediately commercialized and clients see economic benefits.

### **DESIRED INVESTMENT**

### **PARTNERSHIPS**

BDI has developed partnerships with other companies that result in a wider scope of services available to our clients

BDI seeks to work with organizations, individuals, and private companies that have similar industry interests. Often, companies with complimentary skills, experience, and knowledge are approached for teaming or similar arrangements to provide multidisciplinary skills to a project. Combined with BDI's capabilities in engineering sciences, marketing, scientific, agricultural, food, manufacturing, or other similar organizations often collaborate to deal with all aspects of a particular industry related project.

BDI is seeking strategic partners in the areas of manufacturing of food and machine products. In addition, a number of marketing, investment, and distribution partners that are looking for new products or technologies are encouraged to contact BDI for discussions.

## **BLUE HILLS HERB FARM**

2720 Sinton Avenue  
Regina, SK  
Canada S4S 1K1

Telephone: (306) 924-3991  
Facsimile: (306) 545-7888  
E-mail: victaylor@sasktel.net

Victor Taylor  
Managing Director

### **NATURE OF BUSINESS**

Blue Hills Herb Farm Inc. is a recognized leader in the certified organic production of *Echinacea Angustifolia*. *Echinacea Angustifolia* is known to support the immune system. Several constituents in echinacea are known to increase the production and activity of white blood cells. The company's certifying body is Pro-Cert Organic Systems.

The company has a primary focus on the commercial scale production of *Echinacea Angustifolia* with 25 acres currently under cultivation.

### **MAJOR ACHIEVEMENTS**

- The harvest of 1998 completed the company's first production cycle for both *Echinacea Angustifolia* root and seed harvest
- Blue Hills has been growing *E. Angustifolia* since 1996. The company has harvested seed for the past three years (1997-1999) and root for the past two years (1998, 1999)
- The company has marketed seed to individual and corporate growers, primarily in Western Canada and in Prince Edward Island

- The University of Saskatchewan, Saskatchewan Herb Research Program, using high performance liquid chromatography for authentication and level of active ingredients, tests Blue Hills Herb Farm roots annually and they have authenticated the company's seed as true *Echinacea Angustifolia*
- Blue Hills Herb Farm began as a partnership and progressed to a privately held corporation in 1999. The corporation now has approximately 25 acres of certified organic *Echinacea. Angustifolia* under cultivation, making it one of the largest producers of that medicinal herb in Western Canada
- In 1999, the firm also participated in a research project with the University of Saskatchewan, Agriculture & Bioresource Engineering department in developing appropriate harvesting equipment for prairie soil conditions
- Participated in research with the University of Saskatchewan's Herb Research Program
- Adapted machinery, cleaning and drying processes to add efficiency to its operations

### **COMPANY PROFILE**

|                      |  |
|----------------------|--|
| Sales Volume:        | \$ 1-50,000  |
| R&D Expenditure:     | \$ 30,000  |
| Employees:           | 6  |
| Facilities:          | 25 acres of certified organic <i>E. Angustifolia</i> |
| Ownership:           | Private  |
| Trade:               | Exporting  |
| Export destinations: | Australia  |

# **FUNCTIONAL FOOD & NUTRACEUTICAL TECHNOLOGIES IN CANADA**

---

Total exports: \$1-50,000

Percentage of sales  
exported: 100% (2002)

Key Alliances:

- University of Saskatchewan
- Wise Owl Herbs
- Saskatchewan Herb and Spice Association

## **COMPANY BACKGROUND**

Blue Hills Farm is located in southern Saskatchewan, approximately 50 miles southwest of Regina. The soil used for the herb production is a light, well-drained, sandy loam, in the dark brown soil zone. The company's fields are slightly rolling with excellent airflow. Blue Hills Farm has had minimal root and disease problems and no winterkill. The company established its fields by using both transplants and direct seeding methods.

The shareholders of Blue Hills Herb Farm Inc. include a mix of long time farmers, researchers, health care professional, and management personnel.

During the 1999 crop year the company redesigned its entire process of cultivation, harvesting, washing and drying to the expansion in its production. The company has conducted feasibility studies of other medicinal crops for commercial scale operations.

## **CURRENT ACTIVITIES**

Blue Hills continues to develop and adapt field equipment, testing various planting and organic weed control measures, to reduce the labour input requirements to support larger scale organic operations of herbal plants.

It is currently investigating the feasibility of adding value to its products through processing. It is also researching methods of improving seed germination of select medicinal plants.

The two continuing priorities are weed control and efficient root harvesting. The company continues to experiment with the development of appropriate technology for weeding and harvesting for small scale but intense production.

Blue Hills Herb Farm is actively seeking new markets for our expanding scale of production. 700 kilograms of root was exported to Australia in 2002.

## **DESIRED INVESTMENT PARTNERSHIPS**

Blue Hills Herb Farm Inc. is seeking long term supply, research and development opportunities to collaborate with processors and distributors of fresh and dry root material, whole, semi-processed, or in extraction form. Blue Hills Herb Farm Inc. is one of the largest producers in western Canada with a capacity to ship large quantities.

## ***BC FUNCTIONAL FOOD & NUTRACEUTICAL NETWORK***

Room 218 - Food, Nutrition, and Health Bldg.  
2205 East Mall  
Vancouver, BC  
Canada V6T 1Z4

Telephone: (604) 822-6920  
Facsimile: (604) 822-5143  
E-mail: [info@bcfn2.com](mailto:info@bcfn2.com)  
Website: <http://www.bcf2.com>

Contact:  
Dorota Zawistowska, Communications and Marketing  
Manager

### **NATURE OF ORGANIZATION**

The British Columbia Functional Food & Nutraceutical Network (BCFN) is an association representing the functional food, nutraceutical and natural health product industry in BC and the rest of Canada. The purpose of the organization is to facilitate the exchange of scientific and technological information among its members.

BCFN's vision is one of:

- A strong and growing BC industry
- A Canadian regulatory regime that supports the development and use of functional foods, nutraceuticals, and natural health products
- Well-informed consumers and health practitioners who can easily access safe, effective and consistent quality products
- British Columbia is an internationally valued centre for expertise, raw materials, research, industry, markets and supportive infrastructure

#### **BCFN's Program Goals**

- Increased development and growth of BC and Canadian companies.

- Increased business activity between participants in the BC and national industry cluster.
- Wide recognition of the quality of BC and Canadian products and know-how.
- BCFN members have timely access to leading expertise, information and technology for competitive advantage.
- Domestic government policies that support the industry's growth and are sensitive to the needs and realities of the BC industry.
- Linkages with relevant national and international bodies and initiatives.

### **MAJOR ACHIEVEMENTS**

- BCFN is the recognized source in British Columbia of reliable information on functional foods, nutraceuticals, and natural health products (NHPs).
- Since 2003, hosted 15 Breakfast Seminars pertaining to clinical trial issues related to functional foods and NHPs.
- Since 2003, hosted 2 international conferences on Functional Foods and Nutraceuticals in Japan and China as well as 7 business development seminars across the province of BC.
- Incorporated an NHP Analytical Division which deals with technical issues in NHP analysis which so far has organized 6 successful events and workshops.

### **COMPANY PROFILE**

|                  |                    |
|------------------|--------------------|
| Sales Volume:    | N/A                |
| R&D Expenditure: | N/A                |
| Employees:       | 2                  |
| Facilities:      | N/A                |
| Ownership:       | Non-profit society |
| Trade:           | N/A                |

# **FUNCTIONAL FOOD & NUTRACEUTICAL TECHNOLOGIES IN CANADA**

Export destinations: N/A  
(Please list the country(ies) your company is currently exporting to)  
Total exports: N/A  
Percentage of sales exported: 0%

- British Columbia Ministry of Agriculture, Food and Fisheries
- Agriculture and Agri-Food Canada
- University of British Columbia, Faculty of Agricultural Sciences
- British Columbia Institute of Technology, Herbal Evaluation & Analysis Laboratory
- British Columbia Herb Growers Association
- British Columbia Seabuckthorn Growers' Association
- The British Columbia Association of Ginseng Growers

## **ORGANIZATIONAL BACKGROUND**

The British Columbia Functional Food and Nutraceutical Network was formed as an industry initiative due to a recognized need for information and scientific technological exchange among related industries and colleagues including manufacturers, researchers, analytical labs, various governments, education, retailers, growers and consultants. BCFN serves as a network and resource to facilitate the latest, up-to-date information to members.

The role of the BCFN is to:

- Determine the principle challenges facing Canadian nutraceuticals in general and BC nutraceuticals and food industry in particular
- Bring together the key players in the development of the industry, and identify the principle challenges to the industry
- Identify and inform members of new issues and how they will affect the industry
- Encourage strategic alliances within industry – academia and government
- Identify and facilitate business development opportunities for member companies

The BCFN is committed to promote and maintain the stature of the functional food, nutraceutical and natural health product industry in BC and Canada. It focuses on providing a forum for discussion and dissemination of scientific and technical information to ensure growth and development of the industry.

## **Key Alliances:**

- Western Economic Diversification

## **CURRENT ACTIVITIES**

Providing to BCFN members:

- Preferred access to information and networking through reduced rates to frequent seminars and conferences
- Opportunities for input on issues affecting the nutraceutical and functional foods industry
- Advanced notification of upcoming events including future services as the BCFN grows
- Web casting of seminars virtually across the country

Other activities include:

- Promoting BCFN corporate members
- Increasing the profile of the science of nutraceuticals, functional foods and natural health products within BC
- Setting up database of scientific and technological resources for BCFN members

## **DESIRED INVESTMENT PARTNERSHIPS**

- Seeking collaborative agreements with similar associations and organizations
- Funding to expand membership services to the nutraceutical and functional foods sector

- Promoting and partnering research efforts to support applied research
- Work with related organizations to identify industry and sectoral challenges
- Seeking alliances with organizations promoting product quality, purity, potency and efficacy
- Seeking investment partners for the BCFN and for the BC functional food and nutraceutical industry

## **CANADIAN EMU OIL SASK. LIMITED**

P.O. Box 1207  
Carlyle, Sask.  
S0C 0R0

B.C. Branch  
P.O. Box 877  
Duncan, BC  
Canada V9L 3Y2

Telephone: (306) 453-2959  
Facsimile: (306) 453-6740  
E-mail: [info@emu.ca](mailto:info@emu.ca)  
Website: <http://www.emu.ca>

Denise Code, MSc., RD  
President

### **NATURE OF BUSINESS**

Canadian Emu Oil Sask. Ltd., one of the few rendering companies in Canada, renders and refines emu oil and manufactures a line of products. All of the company's oil meets or exceeds the International Emu Oil Guidelines defined by the American Emu Association.

Our philosophy here at Canadian Emu Oil Sask. Ltd. is to take this special component from nature and minimize intervention to maximize biologic benefits in our product. We prefer to have the oil itself complimented with natural ingredients rather than to compliment other ingredients with the oil.

### **MAJOR ACHIEVEMENTS**

- Canadian Emu Oil Sask. Ltd. is the leading emu oil rendering and refining company in Canada
- Canadian-wide distribution network
- Have presented at American Oil Chemist's Society (AOCS) meetings for 5 years
- All oil meets or exceeds the International Emu Oil Guidelines defined by the American Emu Association
- Published "Youth Renewed – a Common Sense Approach to Vibrant Health ... at Any Age", written by Dr. William E. Code & Claudia Tiefisher. An excellent teaching resource for personnel and clients in the health food store industry
- Have constructed a processing facility at Carlyle, Sask.

### **COMPANY PROFILE**

|               |  |
|---------------|--|
| Sales Volume: | \$250,001-\$500,000  |
| Employees:    | 3  |
| Facilities:   | Carlyle, Saskatchewan, is the primary facility, Duncan BC, R&D site. |
| Ownership:    | Private  |
| Trade:        | Export ready   |

#### Key Alliances:

- International Specialty Production of Emu Cooperative Ltd. (ISPECL)
- BC Emu Association
- Saskatchewan Nutraceutical Network
- BC Functional Food & Nutraceutical Network



## **COMPANY BACKGROUND**

Canadian Emu Oil Sask. Ltd. is located in Carlyle, Saskatchewan.

Canadian Emu Oil Sask. Ltd. will process (render) and/or refine emu fat. The company's aim is to use optimal processing, therefore, proper fat management, storage and rendering is essential.

Canadian Emu Oil Sask. Ltd. tests every rendered batch of emu oil for peroxide values, anisidine, and other tests.

Canadian Emu Oil Sask. Ltd. is seeking partners for the marketing of emu oil and emu oil products. The company is also seeking other partners who are interested in using a high quality oil with proven therapeutic and cosmetic properties in their manufactured products.

## **CURRENT ACTIVITIES**

Canadian Emu Oil Sask. Ltd. now offers a full range of products under the Songlines label made with high quality emu oil, refined according to the International Emu Oil Guidelines.

All of the Songlines products have emu oil as the major component. Care is taken throughout the refining process to ensure that the natural benefits of the emu oil are preserved. The result is a pure odorless, remarkable oil which blends readily with other natural beneficial and aromatic oils.

Songlines Products include:

- Natural Emu Oil (Natural Body Rub)
- Warm Body Rub
- Northern Comfort / Joint Comfort
- Skin Repair
- Emu Oil Lip Balm
- Natural Face Care
- Emu Oil Gel Capsules
- Soap

## **DESIRED INVESTMENT**

## **PARTNERSHIPS**

**CANADIAN  
PHYTOPHARMACEUTICALS  
CORPORATION**

Unit 3150 – 21331 Gordon Way  
Richmond, British Columbia  
Canada V6W 1J9

Telephone: (604) 303-7782  
Facsimile: (604) 303-7726  
Email: canphyto@intergate.bc.ca  
Website: <http://www.canphyto.com>

Dr. Yuan-Chun Ma  
President and CEO

**NATURE OF BUSINESS**

Canadian Phytopharmaceuticals Corporation specializes in the research, development and production of standardized phytopharmaceuticals. Using standard methods and strict quality control, including HPLC analysis, the company guarantees correct and consistent levels of active ingredients in all its products. Canadian Phytopharmaceuticals offers custom contract manufacturing and analytical services.

**MAJOR ACHIEVEMENTS**

- Developed a series of rapid and effective methods for evaluating the potency of herbal extracts using HPLC
- Successfully combined traditional medical theory and modern technologies to develop herbal products

- Presented peer-reviewed papers at national and international pharmaceutical conferences

**COMPANY PROFILE**

|                               |  |
|-------------------------------|--|
| Sales Volume:                 | \$ 2.0 M   |
| R&D                           | \$ 200,000   |
| Expenditure:                  |  |
| Employees:                    | 18   |
| Facilities:                   | 11,000 sq.ft.<br>(30% laboratory, 70% manufacturing) |
| Ownership:                    | Private  |
| Trade:                        | Manufacturing and exporting                          |
| Export destinations:          | Worldwide  |
| Total exports:                | \$500,001 - \$ 1 Million                             |
| Percentage of sales exported: | 25 - 49.9%   |

**Key Alliances:**

- Agriculture and Agri-Food Canada
- University of Ottawa
- RHK Group
- China Worldbest Group Co. Ltd
- Trout Lake Farm

**COMPANY BACKGROUND**

Canadian Phytopharmaceuticals was founded in 1996. The company currently serves customers in North America, Asia, Canada, Europe, and USA from a strategic location in Vancouver, British Columbia.

**CURRENT ACTIVITIES**

## ***FUNCTIONAL FOOD & NUTRACEUTICAL TECHNOLOGIES IN CANADA***

---

Canadian Phytopharmaceuticals is active in the research and manufacturing of standardized natural pharmaceuticals. The company's processed products include the most popular North American herbs and other popular herbal products in powder and liquid forms. The company activities also include contract manufacturing, encapsulation, liquid filling and packaging.

The company's services include:

- manufacturing of standardised botanical extract in bulk form
- research & development of standardized herbal products
- analytical services for herbal products and compounds
- contract manufacturing of herbal products to GMP standards
- consulting to government and industry (e.g., the company advises farmers on the best conditions for cultivating quality herbs)
- custom manufacturing

### **DESIRED INVESTMENT**

### **PARTNERSHIPS**

Canadian Phytopharmaceuticals seeks national and international distribution agreements for its standardized herbal products in bulk. The company would be interested in negotiating contract-manufacturing agreements and in providing analytical services to researchers or manufacturers of herbal products.

## **CEAPRO INC.**

4046 RTF University of Alberta  
8308 – 114 Street  
Edmonton, AB  
Canada T6G 2E1

Telephone: (780) 421-4555  
Facsimile: (780) 421-1320  
e-mail: info@ceapro.com  
Website: <http://www.ceapro.com>

Mark J. Redmond, Ph.D.  
President & CEO

### **NATURE OF BUSINESS**

Ceapro is a biotechnology company that develops and commercializes natural products for medical and animal health industries using proprietary technology and renewable resources. Stated simply: *Nature Enhancing Life®*.

The focus for the company is the extraction of oat beta glucan and colloidal oat extracts for the personal care, animal health, and food, functional food, and nutraceutical industries.

The company's research is focused on enhancing the extraction technologies to create the capability to extract active compounds from other plant materials. Ceapro's platform technology is based on proprietary separation and molecular fingerprinting processes.

### **Major Achievements**

- Launched new animal health product line in Japan. Achieved number one product status.
- Completed alliance with semundo for research and development of new seed varieties.

- Completed distribution agreement with Symrise for Beta Glucan and Colloidal Oat Extract for personal care and cosmetics.
- Expanded intellectual capital base with patents for Beta Glucan, Colloidal Oat Extract, and AccuScreen™.
- Completed clinical development of AccuScreen, a screening test for pre-diabetes.

### **COMPANY PROFILE**

Sales Volume: \$ 2.2 M  
R&D Expenditure \$ 354,000  
Employees: 13  
Facilities: -Leased office space  
-Production is taking place at the Leduc Food Processing Development Centre, an Alberta government facility

Ownership: Public (TSX : CZO)  
Trade: Exporting  
Export destinations:

- Japan
- Germany
- Australia
- USA

Total exports: \$1 - \$10 Million  
Percentage of sales exported: 98%

Key Alliances:

- Agricore
- Daisen Sangyo
- Symrise Inc.
- Nippon Zenyaku Kogyo
- Semundo
- Vet Business (Australia)

### **COMPANY BACKGROUND**

Ceapro was founded and began biotechnology research and development in 1991. Since then, the company has acquired Minerva Animal Health Corp., which develops and markets products in the field of veterinary health. Ceapro has amalgamated with Vexco Healthcare (December 1996). Ceapro's expertise in agriculture and biotechnology is strengthened through collaborations with grain suppliers, government agencies, research institutions, and product manufacturers and distributors.

### **CURRENT ACTIVITIES**

Ceapro has developed leading edge extraction technologies that produce standardized formulations for the personal care, animal health, and functional food industries.

Ceapro is continuing to strengthen its extraction technology base and continues to develop marketing partnerships to address the industry segments which will and can use the Ceapro extracts in their end-use products.

Ceapro will develop other novel extracts by applying its separation technology to other plant materials.

### **DESIRED INVESTMENT PARTNERSHIPS**

Strategic licensing and distribution agreements with companies having:

- established distribution and retail networks, or
- integrated manufacturing, distribution and retailing capabilities to bring Ceapro's products to market.

**CHAI-NA-TA CORP.**

5965 205A Street  
Langley, BC  
Canada V3A 8C4

Telephone: (604) 533-8883  
Toll free: (800) 406-7668 (Canada & U.S.A)  
Facsimile: (604) 533-8891  
E-mail: gerryg@chainata.com  
Website: <http://www.chainata.com>

Mr. Gerry Gill  
President and CEO

**NATURE OF BUSINESS**

Chai-Na-Ta is the largest grower and distributor of North American ginseng products in the world and the only "farm to consumer" ginseng company. The Company has its own farms in Ontario and British Columbia, ongoing research and development projects for new product development, and manufacturing and distributing facilities. This vertical integration ensures Chai-Na-Ta product integrity from the farm level through to value-added consumer products.

**MAJOR ACHIEVEMENTS**

- In 1999, 403.7 acres of North American ginseng (*Panax quinquefolius*) were harvested with an average yield of 2,685 pounds per acre for a total of 1,083,643 pounds.

**COMPANY PROFILE**

|              |   |
|--------------|---|
| Sales        | \$ 16.2 M (1999)                            |
| Volume:      |   |
| R&D          | N/A   |
| Expenditure: |   |
| Employees:   | 400   |
| Facilities:  | 1,400 (approx. ) total ginseng farm acreage |
| Ownership:   | Public (OTCBB : CCCFF, TSE : CC)            |
| Trade:       | Exporting                                   |

**Key Alliances:**

- Unique Formulations, Inc.
- Chai-Na-Ta Asia
- Wuxi Zhongjia Phytopharmaceuticals Company Ltd.
- Dalian Pegasus Ginseng Pharmaceutical Co. Ltd.
- North American Ginseng Enterprises Ltd.
- China Hua Yuan Industry (Canada) Inc.
- Tung Fong Hung Medicine Co. Ltd.
- University of British Columbia
- University of Toronto
- Harvard Medical School
- University of Alberta

**Joint Ventures:**

- Skketchestn/CNT Xexe7ellp (Potent) Ginseng
- President Asia Group (Canada)

## **COMPANY BACKGROUND**

Since its inception in 1981, the Company has grown from a successful farm operation into a vertically integrated organization that produces, markets, and distributes its products. Chai-Na-Ta is continuing to develop worldwide markets for its products, forge strategic alliances and initiate scientific research into the efficacy of North American ginseng. Chai-Na-Ta now has operations in Canada, U.S.A., Hong Kong, China, and Barbados, with the goal of becoming a global leader in the development and marketing of high quality North American ginseng products.

## **CURRENT ACTIVITIES**

Our R&D Department and the Scientific Advisory Board are currently directing four scientific studies. Two human clinical studies are underway at the present time; one at the University of Toronto and one at the University of Alberta. The other programs are being undertaken at the Harvard Medical School and the University of British Columbia. The results of these studies will bring consumer awareness to North American Ginseng and its health benefits and provide Chai-Na-Ta a selling tool into the North American markets.

## **DESIRED INVESTMENT PARTNERSHIPS**

Chai-Na-Ta is currently seeking to continue to engage in, and provide support at leading universities or medical groups for, medical studies and research on the effectiveness of North American ginseng (*Panax quinquefolius*)

## **COULEE PICKINGS LTD.**

Suite 280, 1919 Rose St.  
Regina, SK  
Canada S4P 3P1

Telephone: (306) 721-7863  
Facsimile: (306) 761-2709  
E-mail: harold.moen@couleepickings.com  
Website: <http://www.couleepickings.com>

Harold Moen  
President

### **NATURE OF BUSINESS**

Coulee Pickings Ltd. is a Canadian-based company operating as a primary producer of raw materials for the nutraceutical and dermatological markets.

The company wildcrafts several botanicals that grow naturally in the region and also contracts wildcrafters in other regions to harvest plants.

Research and Development is a critical component. To maintain a competitive advantage, new harvesting, drying, milling, screening and packaging methods are under a constant development.

### **MAJOR ACHIEVEMENTS**

- Developed an economical method to process yellow dock acrials in the field using a portable mill
- Developed a portable solar dryer for controlled drying of herbs

### **COMPANY PROFILE**

|                               |  |
|-------------------------------|--|
| Sales Volume:                 | \$<0.250 M (2003)  |
| R&D Expenditure:              | \$< 0.05 M (2003)  |
| Employees:                    | 2 full time with up to 10 in the prime harvest season                              |
| Facilities:                   | 4000 sq. ft. of storage and processing space , 480 acres of land                   |
| Ownership:                    | Private  |
| Trade:                        | Exporting  |
| Export destinations:          | <ul style="list-style-type: none"> <li>• United States</li> <li>• Japan</li> </ul> |
| Total exports:                | \$50,001 - \$150,000   |
| Percentage of sales exported: | 25 - 49.9%   |

Key Alliances: n/a

### **COMPANY BACKGROUND**

Coulee Pickings Ltd. was incorporated in 1996, as a family business, to wildcraft, grow and preserve botanicals for the floral and manufacturing industry. Because of the company's experience as a wildcrafter, nutraceutical companies and brokers contact the firm to harvest products for their market. This is a vital component of the Coulee Pickings business.

Coulee Pickings operates as a primary producer of raw materials for the nutraceutical and dermatological industries. The firm is equipped to harvest large quantities of botanicals whether they are a cultivated or wildcrafted species.

### **CURRENT ACTIVITIES**

Coulee Pickings Ltd. works with companies to develop new products. The company will continue to provide clients with a clean, pure and uniform primary processed product.



Botanicals available for contract production include:

- Goldenrod Herb (*Solidago canadensis*)
- Mullein Leaf (*Verbascum thapsus*)
- Nettle Aerials (*Urtica dioica*)
- Oat Grass (*Avena sativa*)
- Tansy Herb (*Tanacetum vulgare*)
- Wormwood (*Artemisia absinthium*)
- Yellow Dock Root (*Rumex crispus*)
- Yellow Dock Aerials.

### ***DESIRED INVESTMENT PARTNERSHIPS***

Coulee Pickings Ltd. is keenly interested in a co-operative development of new products. The company will grow or wildcraft small amounts of botanicals, process them to your specifications, and forward them to your research personnel for testing.

## **CV TECHNOLOGIES INC.**

9411-20 Avenue  
Edmonton, AB  
Canada T6N 1E5

Telephone: (780) 432-0022  
Facsimile: (780) 432-7772  
E-mail: info@cvtechnologies.com  
Website: www.cvtechnologies.com

Kim Lucas, M.B.A., CFP  
President and CEO

### **NATURE OF BUSINESS**

CV Technologies Inc. (CDNX:CVQ), an international science and technology company, has developed, commercialized and patented proprietary technology (ChemBioPrint™) to identify and biologically standardize natural products that deliver health benefits.

Utilizing the Company's ChemBioPrint™ technology, CVT scientists have obtained specific chemical and biological profiles of proprietary natural products and determined their mechanisms of action and optimal dosages. The result is the development of candidate therapeutic products that are certified biologically active and consistent batch to batch.

CV Technologies markets its natural products in Canada under its HerbTech® brand name and supplies proprietary ingredients to national and international markets. The Company currently holds 22 patents, which includes 12 US patents. An additional 39 patents are pending worldwide. Two Patent Cooperation Treaty applications have been filed.

CV Technologies has recently increased its focus on growing sales domestically and on seeking business partners.

### **MAJOR ACHIEVEMENTS**

- Discovery of the ChemBioPrint™ process which enables accurate characterization of specific mixtures from natural substances with a series of chemical and functional assays.
- Dupont Consumer Health and CV Technologies Inc. announce an agreement on February 25, 2000 whereby CV Technologies Inc. will analyze a number of commercial health supplement products for bioactivity, consistency, and optimum levels of bioactive compounds.
- The Edmonton Oilers and eleven additional professional hockey teams continue to regularly use Cold FX®, a nutraceutical immune-boosting product.
- ChemBioPrint Asia, a joint venture between CVT, the University of Hong Kong and a Hong Kong business group, was formed to evaluate and commercialize Traditional Chinese Medicine for international distribution. This venture continues to promise early results.
- 6 nutraceutical products on the market and 10 additional products under development.
- The discovery of the PHF hormone of the parathyroid gland as an apparent causative factor of low renin-salt sensitive hypertension and type 2 diabetes. In this area CV Technologies Inc. is developing two natural products from its ChemBioPrint™ platform for disease treatment.
- In 1999, CV Technologies received US Food & Drug Administration clearance to proceed with a Phase II double-blind placebo-controlled clinical trial for its lead product CVT-E002, a multi-component nutraceutical. The recent results indicated a statistically significant decrease in upper respiratory infection when CVT-E002 was compared to placebo. Also in 2001 CVT completed a study that demonstrated that the use of COLD-FX®, the nutraceutical counterpart of CVT-E002, will not cause a positive doping control test under International Olympic Committee guidelines.

- CVT's ChemBioPrint™ technology (US patent #6,156,291) was used for a contract with The Consumer Health Division of DuPont to evaluate 200 commercial products in comparison to the consistency in efficacy of four of CVT's products. The study confirmed the high variability in the commercial products tested, and validated the ChemBioPrint™ technology for evaluation and development of standardized natural products that deliver health benefits.

### **COMPANY PROFILE**

Sales Volume: \$ 1.3 M (2002)

Employees: 11 employees

Facilities:

- 5,000 sq.ft. of office space
- 7,000 sq.ft. of laboratory space

Trade: Exporting

Export destinations:

- United States
- Australia

Total exports: \$250,001 - \$500,000

Percentage of sales exported: 2.5 - 4.9 %

Ownership: Public (CDN.CVQ)

Key Alliances:

- National Research Council
- Alberta Value Added Corporation
- University of Alberta
- University of Hong Kong
- Purity Life Health Products Ltd.
- ChemBioPrint Asia Ltd.

### **COMPANY BACKGROUND**

CV Technologies Inc. was established in 1992 as a spin-off from the University of Alberta. Dr. Peter Pang Ph.D., D.Sc. is the founder. Kim Lucas MBA is the President and CEO. CV Technologies Inc. is a biopharmaceutical company, which carries out the research and development of both pharmaceutical and nutraceutical products. In addition it manufactures and markets nutraceuticals under the brand name HerbTech®. In June of 1998 CV Technologies Inc. Merged with HerbTech Inc. and continued as CV Technologies Inc.

### **CURRENT ACTIVITIES**

1. Marketing of the following HerbTech® products:
  - Cold-FX Immune System
  - Remember-FX Memory function
  - Menta-FX Brain function
  - AD-FX Hyperactivity disorder
  - Pressure-FX Hypertension
  - Cell-FX Inflammation
2. Through a unique application of modern pharmaceutical science in combination with traditional herbal medical expertise, CV Technologies Inc. is identifying, extracting and standardizing active mixtures from herbs and other natural substances to enable development of commercial products for international health supplement and pharmaceutical markets.
3. Establishing clear differentiation from competitors by building on CV Technologies' substantial patent position in natural therapeutic mixtures, and not just claiming, but scientifically proving, both safety and efficacy.
4. Forming strategic alliances with major pharmaceutical, vitamin or consumer health care companies to market CV Technologies products worldwide.

5. Continuing to build relationships with government agencies and industry organizations in establishing a leadership position in industry-wide quality standards and certification of natural therapeutics.
6. Within the business model established in Hong Kong, maintaining the strategic global network of research, product development and marketing collaborators.

### **DESIRED INVESTMENT PARTNERSHIPS**

- Pharmaceutical alliance(s) for its cold-flu, memory, and attention deficit hyperactivity disorder products.
- Marketing partnerships for the HerbTech Nutraceuticals in major international markets and the Internet.

## ***ENVIRO-TEST LABORATORIES***

Natural Health Product & Food Testing Division  
9936-67 Avenue  
Edmonton, Alberta T6E 0P5

Telephone: (780) 413-5227  
Toll free: (800) 668-9878  
Facsimile: (780) 437-2311  
E-mail: [info@envirotest.com](mailto:info@envirotest.com)  
Website: [www.envirotest.com](http://www.envirotest.com)

Mr. Sean Lidstone  
Marketing Director, NHP & Food Division

### **NATURE OF BUSINESS**

Using state-of-the-art technology, Enviro-Test Laboratories provides a wide range of quality natural health product & food testing services. We use both standard USP, AOAC, ICH, AOCS as well as validated in-house methods to insure your products comply with the standards of quality you have set out. Your analysis is conducted under Good Manufacturing Practice (GMP) as mandated by Health Canada as your assurance of a quality result. We are also in contact with the Natural Health Products Directorate (NHPD) making sure that changes in the industry are addressed at the analytical level. Important also is our in-depth understanding of self-imposed industry standards. As an industry leader and advocate, we are a member of the Canadian Health Food Association, CANI, BC Functional Food & Nutraceutical Network, and Saskatchewan Nutraceutical Network.

- Herbal Analysis
- Food Analysis
- Natural Supplement Analysis
- Vitamin Analysis
- Microbiological Services

- Pesticide Analysis
- Contract Research
- Food Label Analysis
- Agriculture Services
- Special Services
- Certified Phytochemical Reference Materials
- Metals & Mineral Analysis

### **MAJOR ACHIEVEMENTS**

- Over 250 analytical methods available to the NHP industry
- All services performed in-house within ETL network

Accreditations:

- Health Canada for recognition of GMP compliance
- ISO/IEC 17025
- Standards Council of Canada for recognition of OECD GLP compliance (Edmonton, Ottawa)
- Standards Council of Canada in co-operation with the Canadian Food Inspection Agency (CFIA) for specific microbiological testing (Winnipeg) and feed & fertilizer testing (Saskatoon) as listed in the Scope of Accreditation
- Standards Council of Canada in co-operation with the Canadian Association for Environmental Analytical Laboratories (CAEAL) for specific environment test as registered by the Council (Edmonton, Calgary, Saskatoon, Winnipeg, Thunder Bay, Grande Prairie, Waterloo)
- Standards Council of Canada for specific health related analysis as listed in the Scope of Accreditation (Winnipeg)
- American Industrial Hygiene Association (AIHA) for industrial hygiene analysis (Edmonton, Winnipeg) & Fungi analysis (Winnipeg)

**COMPANY PROFILE**

|                               |  |
|-------------------------------|--|
| Sales Volume:                 | est. \$30 M  |
| R&D Expenditure:              | est. \$1 M   |
| Employees:                    | 350  |
| Facilities:                   | 9 Locations in Canada  |
| Trade:                        | Exporting  |
| Exporting Destinations:       | <ul style="list-style-type: none"><li>• China</li><li>• Taiwan</li><li>• Thailand</li><li>• Jordan</li></ul> |
| Total exports:                | < \$50,000   |
| Percentage of sales exported: | < 2.5%   |
| Ownership:                    | Private  |
| Key Alliances:                | Contact company for details  |

**COMPANY BACKGROUND**

Enviro-Test Laboratories (ETL) has been providing multidisciplinary analytical services since 1982. Over the years, ETL has grown into nine locations within Canada. The company currently employs over 350 highly trained professionals and technicians with diverse specialization.

The ETL management team has an average of 30 years experience within the analytical industry. Our areas of specialization include complete analysis of natural health products, food product analysis, microbiological analysis, toxic chemical and complex organic and inorganic analysis, pesticide analysis, dioxin/furan analysis, industrial hygiene services, and method development. ETL's clients include major natural health product manufacturers and growers, food producers, Environment Canada, environmental consultants, the petroleum industry, and agricultural chemical companies.

**CURRENT ACTIVITIES**

- Providing 3<sup>rd</sup> party analytical services to natural health product growers, manufacturers, and raw ingredient import/exporters.
- Providing food, food label, and specialised testing to the food industry.
- Production of high purity analytical reference standards available to research laboratories.

**DESIRED INVESTMENT PARTNERSHIPS**

Partnerships in development of new & superior natural health products.

## ***FORBES MEDI-TECH INC.***

Suite 200-750 West Pender Street  
Vancouver, BC  
Canada V6C 2T8

Telephone: (604) 689-5899  
Facsimile: (604) 689-7641  
E-mail: [info@forbesmedi.com](mailto:info@forbesmedi.com)  
Website: <http://www.forbesmedi.com>

Charles Butt  
President and CEO

### **NATURE OF BUSINESS**

Forbes Medi-Tech Inc. is a biopharmaceutical company dedicated to the research, development and commercialization of innovative prescription pharmaceutical and nutraceutical products for the prevention and treatment of cardiovascular and related diseases. Forbes' scientific platform is based on core sterol technology. By extracting plant sterols from wood pulping by-products, Forbes has developed cholesterol-lowering agents to be used as pharmaceutical therapeutics, dietary supplements and functional food ingredients.

Currently, Forbes is developing products in three large market segments: functional foods, pharmaceutical therapeutics and dietary supplements. Their lead product, Reducol™, is being sold as a functional food and dietary supplement ingredient to treat elevated cholesterol levels, a major risk factor for cardiovascular disease and the leading cause of heart disease in North America. Forbes is also developing FM-VP4, an amphipathic (water-soluble) analogue of phytosterol, which has shown dramatic lipid-lowering and anti-atherosclerotic properties in animal studies as well as promising anti-obesity indications.

### **MAJOR ACHIEVEMENTS**

- Forbes has filed several U.S. Patent Applications for novel processes and formulations allowing the incorporation of Reducol™ and other functional food ingredients into a wide variety of foods and beverages
- Secured US\$10.75 million financing, Great Point Partners & BioAsia acting as lead investors
- European Phase II trials completed for cholesterol-lowering drug, FM-VP4
- Appointment of Dr. Eric Topol, Chairman, Department of Cardiovascular Medicine and Chief Academic Officer of the Cleveland Clinic Foundation, to chairman of Forbes' Medical & Scientific Advisory Board
- FDA issued health claim letter to Forbes allowing Forbes to advertise the heart-health benefits of Reducol™

### **COMPANY PROFILE**

|                  |                  |
|------------------|------------------|
| Sales Volume:    | \$14.3M (FY2003) |
| R&D Expenditure: | \$2.1 M (FY2003) |
| Employees:       | 20               |
| Facilities:      | Manufacturing    |

Ownership: Public  
Trade: Exporting

### Key Alliances:

- Chusei (U.S.A.) Inc.
- University of BC
- McGill University

### **COMPANY BACKGROUND**

From its inception, Forbes has prided itself on being an innovator. Established in 1992, the Company's was founded with an objective of developing a different kind of biotechnology company. The company's prime mandate was to search for and acquire innovative technologies in under-researched areas that could be fast-tracked to commercialization in large market segments.

By licensing and developing phytosterol extraction technology, the company was able to commercialize the production of plant sterols for functional foods and dietary supplements into a growing revenue stream. This revenue has provided funding for the ongoing pharmaceutical R&D program to develop FM-VP4.

### **CURRENT ACTIVITIES**

Forbes currently focuses its product development efforts on plant sterols derived from pulping and agricultural by-products. Plant Sterols have long been known for their cholesterol-lowering properties. Forbes believes it has made important technological advances in these areas and offers significant commercial opportunities in three distinct markets:

- Functional Foods: Reducon™ is a cholesterol-lowering ingredient for use in functional foods. Reducon™ has received FDA GRAS clearance.

- Prescription Pharmaceuticals: Forbes is developing FM-VP4, a prescription therapeutic, for the prevention and treatment of cardiovascular disease through the reduction of cholesterol. FM-VP4 is currently in Phase II clinical trials.
- Dietary Supplements: Reducon™ is incorporated into dietary supplement products. Pharmavite incorporates Reducon™ into Nature Made's "Cholest-Off". This product has a national ad campaign under way.

Forbes focuses the development of its technology within markets that offer significant potential. Each of its three target markets currently potentially represents a multi-billion dollar global market.

### **DESIRED INVESTMENT PARTNERSHIPS**

The Company's strategy is to leverage its core technologies through strategic partnerships and business associations to deliver functional foods, dietary supplements and pharmaceutical products focused in the prevention and treatment of cardiovascular and related diseases. To further the growth and development of its relative products, Forbes is interested in a partnership with a pharmaceutical company to assist in the commercialization of FM-VP4 and a nutraceutical company to assist in the growth of its cholesterol-lowering ingredient business.

Forbes is currently evaluating its capital strategy to raise additional funds to maximize the growth of the company without interruption from fund raising activities.



## **FORTIUS NATURAL NUTRITION**

45 Maple Hills Avenue  
Charlottetown, PE  
C1C 1P5

Telephone: (902) 566-6600  
Facsimile: (902) 566-6612  
Toll-Free: (888) 714-4697  
E-mail: [info@fortius.ca](mailto:info@fortius.ca)  
Website: <http://www.fortius.ca>

Alan Andreasen, CEO  
Ian Andreasen, President

### **NATURE OF BUSINESS**

Fortius Natural Nutrition is a Canadian owned and operated manufacturer of health nutrition products and OTC pharmaceuticals. The company continually offers the newest, most effective and innovative health products available. This is guaranteed through a diligent and comprehensive research and development team and database. Fortius only formulates products that have reliable, peer-reviewed studies backing their efficacy.

Fortius manufactures products under its own label, as well as for private labels. Fortius' 25,000 sq. ft., state-of-the-art production facility, based in Charlottetown, PE, is certified with a cGMP pharmaceutical licence and has a possible productive output of CA\$30 million with easily facilitated expansion capabilities. Quality control, an extremely expensive aspect of the business, is Fortius' top priority.

Since Fortius is a mobile and dynamic company, it is able to stand ahead of the competition with regards to meeting the needs of the customer. Among the wide range of products and services that Fortius provides are in-house formulating, blending, powder filling, tableting, encapsulating, bottling and labeling of products. Fortius is

capable of handling a complete range of packaging sizes, from producing small products, such as 200 mg tablets, to large multi-kilogram powders, as well as bulk products in 25 kilogram bags.

### **MAJOR ACHIEVEMENTS**

- Manufacturing facility licenced and audited by Health Canada as a cGMP Pharmaceutical Manufacturing Facility
- Fortius continues to grow exponentially, each year expanding into new markets, developing new products, and enriching new and existing customer relationships.
- Fortius ranked 21<sup>st</sup> on Profit Magazine's list of hot Canadian startups in 2000.
- For two years in a row, Fortius placed on Alberta Venture's ranking of the fastest growing companies in Alberta.
- In 1999, the Business Development Bank of Canada voted Alan and Ian Andreasen, co-founders of Fortius, "The 1999 Young Entrepreneurs of the Year."

### **COMPANY PROFILE**

|                               |  |
|-------------------------------|--|
| Sales Volume:                 | \$1 - 10 M                                   |
| R&D Expenditure:              | 0 - 2.5%                                     |
| Employees:                    | 32   |
| Facilities:                   | Manufacturing and warehouse                  |
| Ownership:                    | Private                                      |
| Trade:                        | Exporting                                    |
| Export destinations:          | Belgium, Germany, Netherlands, United States |
| Total exports:                | \$500,001 - \$ 1 Million                     |
| Percentage of sales exported: | 15%  |

Key Alliances:

- University of Prince Edward Island
- National Research Council Institute for Nutrisciences and Health
- Atlantic Veterinary College
- University of Berlin
- University of Hanover

### **COMPANY BACKGROUND**

Alan and Ian Andreasen, identical twin brothers from British Columbia, founded Fortius Natural Nutrition in 1997. Alan and Ian each have degrees in Pure and Applied Immunology and have extensive backgrounds in applied sciences and sports nutrition.

Before founding Fortius, Alan and Ian gained experience working for an international health nutrition company where they were responsible for addressing immune deficiency cases in over 15 countries worldwide. Alan and Ian's previous employment allowed them to develop many contacts in European countries such as Germany, Holland, Belgium, England and Wales.

This, combined with their experience shipping Fortius products internationally, has given them significant exporting expertise.

### **CURRENT ACTIVITIES**

Fortius Natural Nutrition products can be found in health food stores, pharmacies, and retail outlets throughout Canada, the United States, and Europe. Fortius' line of health and active lifestyle supplement includes:

- DynaWhey Protein: unique formula designed to provide the body with an effective source of protein for muscle balance, energy production, immune system function, and overall health.

- Colostrum: natural immune enhancer available in Herbal Synergy Formula capsules, chewable tablets, pure capsules, and liquid.
- Pure Creatine Monohydrate: sports supplement for increasing muscle strength and athletic performance and decreasing recovery time after exercise.
- EstroSoy: soy beverage mix that provides all the health and nutritive benefits of a protein supplement in a vegetarian, cholesterol-free, and dairy-free format.
- MenoSoy: anti-menopause formula containing soy protein and powerful anti-menopause herbs. Designed to treat the symptoms of menopause, lower cholesterol, inhibit the growth of cancer cells, and reduce the incidence of osteoporosis.
- Joint-Ease: a unique, scientifically designed blend of ingredients that provides nutritional support to the entire joint for both long-term care and acute joint injury.
- Cholest-Ease: natural supplement formulated to aid in the fight against elevated cholesterol levels and the risk of cardiovascular disease.
- Old Faithful: product designed to treat erectile dysfunction through the supplementation of ingredients that have been proven to balance hormonal levels and increase genital blood flow.
- Pyrolean: a compliment to anyone's fitness or weight loss program that is designed to help you lose weight and increase endurance.

Fortius also formulates products for the commercial livestock, equine and companion animal (pet) market.

### **DESIRED INVESTMENT**

### **PARTNERSHIPS**

Fortius Natural Nutrition is seeking reputable distributors, both national and international, to help expand the Fortius product line and to develop a network of credible distributors.

ingredient of Canadian Willowherb™

## ***FYTOKEM PRODUCTS INC.***

Innovation Place  
101 – 110 Research Drive  
Saskatoon, SK  
Canada S7N 3R3

Telephone: (306) 668-2552  
Facsimile: (306) 978-2436  
E-mail: [fytokem@fytokem.com](mailto:fytokem@fytokem.com)  
Website: <http://www.fytokem.com>

Mr. Art Hesje  
President & CEO

### **NATURE OF BUSINESS**

Fytokem Products Inc. is a Canadian life sciences company engaged in the discovery and commercialization of novel Function-Certified™ plant-based substances - extracts, phytochemicals and bioactive molecules - for use as active ingredients in personal care, pharmaceutical and bio-industrial products.

### **MAJOR ACHIEVEMENTS**

- Completed initial public offering in August 1997
- Released a reference work that provides a wealth of information on the natural molecules found in native and naturalized plants in the northern prairies of North America
- Launched an extract from Canadian Willowherb™ (*Epilobium angustifolium*)
- Launched a tyrosinase inhibition product - Tyrostat™
- Strategic partnership with Atrium Biotechnologies Inc. of Quebec City for personal care industry.
- Isolated and characterized a principal active

### **COMPANY PROFILE**

|                               |   |
|-------------------------------|---|
| Sales Volume:                 | \$577,000   |
| R&D Expenditure:              | \$280,000   |
| Employees:                    | 5   |
| Facilities:                   | Laboratory and micro-manufacturing facilities   |
| Ownership:                    | Public (TSX:FYT)  |
| Trade:                        | Exporting   |
| Total exports:                |   |
| Percentage of sales exported: | Virtually all sales are made to our Canadian distributor who exports to companies worldwide |
| Export destinations:          | Global  |

Key Alliances:

- Saskatchewan Department of Agriculture & Food
- National Research Council's Industrial Research Assistance Program (IRAP)
- Atrium Biotechnologies Inc. (Quebec)

### **COMPANY BACKGROUND**

Fytokem was established in 1994. The company was created for the manufacture of chemicals derived from plant materials. Its head office is located in Saskatoon, Saskatchewan, in western Canada's agricultural heartland and close to vast northern forest regions. Through alliances, the company has expanded its repertoire of plant species from which to prepare extracts. The company currently has two product lines gaining sales success. Both are presently sold as ingredients for use in the personal care industry. Fytokem's vision is to become the premier North American supplier of functional plant extracts and refined phytochemicals.

**CURRENT ACTIVITIES**

Fytokem research is active in the identification and marketing of novel plant extracts and phytochemicals for:

- cosmetics and personal care preparations
- nutraceutical and functional food products
- non-prescription therapeutic preparations

**DESIRED INVESTMENT PARTNERSHIPS**

Fytokem is seeking:

- strategic partners that operate screening programs for external sources of extracts/chemicals
- strategic partners for the discovery and development of natural products

## **GELDA SCIENTIFIC INC.**

6320 Northwest Drive  
Mississauga, Ontario  
Canada L4V 1J7

Telephone: (905) 673-9320  
Facsimile: (905) 673-8114  
E-mail: [gelda@globalserve.net](mailto:gelda@globalserve.net)  
Website: <http://www.gelda.com>

Dr. C. Sen Gelda  
Chairman

### **NATURE OF BUSINESS**

Gelda Scientific Inc. manufactures and distributes food, health products, and industrial enzymes. The company also provides consulting, product development, and laboratory testing services to the food and agri-food sectors. In addition, the company operates a pharmaceutical manufacturing facility, which enables them to produce a wide range of nutritional and pharmaceutical products.

### **MAJOR ACHIEVEMENTS**

- Manufactures or distributes over 300 products
- Constructed a state-of-the-art pharmaceutical manufacturing facility
- Over 200 companies use the company's microbiological and chemical testing services
- Developed the technology to culture two of the most beneficial Bifido bacteria strains and incorporate these into common foods
- First company in Canada to introduce lactose-free ice cream and other dairy products

- In collaboration with leading Ayurvedic experts from India and Canada, the company has developed several Ayurvedic herbal products
- In 1986, Gelda was awarded a Canada Excellence Gold Award in Technology Transfer

### **COMPANY PROFILE**

Sales Volume: Not Available

R&D Expenditure: \$ 0.2 – 0.3 M

Employees: 25

Facilities: 7000 sq. ft. quality control laboratory and pilot plant  
8000 sq.ft. fully equipped HPB-approved pharmaceutical manufacturing facility  
18,000 sq.ft. warehouse

Ownership: Private

Trade: Exporting

### **COMPANY BACKGROUND**

Gelda Scientific is a family-owned company established in 1978. The company's main focus is on utilizing Canada's agricultural resources and turning them into industrial and consumer food and health products and processes. Products are marketed in Canada, the U.S., Europe and Asia.

### **CURRENT ACTIVITIES**

## ***FUNCTIONAL FOOD & NUTRACEUTICAL TECHNOLOGIES IN CANADA***

---

Gelda Scientific manufactures and distributes an extensive line of food and health products and provides a wide range of services to companies in the food and agri-food industries.

Research is focused on the development of new herbal products and probiotics.

The company's products include:

Health Products:

- bifidobacteria (probiotic) products
- lactase products
- phyto-therapeutical products
- Ayurvedic herbal products

Food Products:

- lactose-free dairy products
- rennet-free cheeses and snacks
- cooking oils and almond oil
- basmati rice and spices
- tropical juices and ice creams

Industrial Enzymes:

- lactase
- pectinase
- isoamylase
- lipase
- hemicellulase

Services include:

- tablet/capsule manufacturing and powder blending/filling
- microbiological and chemical analysis
- contract research & development
- GMP/HACCP training
- environmental audits
- nutritional labeling
- R&D tax credit

Gelda Scientific is one of the leading companies in Canada for the development of new industrial technologies and has directly contributed to the growth of numerous Canadian companies.

Gelda's activities in this area include:

- Identification of opportunities

- Development of business plans
- Transfer of technology
- Adaptation of international technologies

### **DESIRED INVESTMENT** **PARTNERSHIPS**

Gelda is interested in negotiating marketing and distribution agreements for its products.

**GOURMET NUTRITION F.B.  
INC.**

2121-4 Leonard-De Vinci  
Ste-Julie, Quebec  
Canada J3E 1Z2

Telephone: (450) 922-2885  
Facsimile: (450) 922-2886  
E-mail: [info@gourmetfb.com](mailto:info@gourmetfb.com)  
Website: <http://www.gourmetfb.com>

Diane Auclair  
General Manager

**NATURE OF BUSINESS**

Gourmet Nutrition F.B. Inc. is an approved food manufacturing plant and a licensed pharmaceutical firm, producing according to the Good Manufacturing practices generally recognized in North America and worldwide.

Gourmet Nutrition's main activities consists of manufacturing, importing and distributing Medicinal Herbs, Herbal Tea Bags, Botanicals and Supplements.

The company also provides supplemental services including blending, grinding, standardization and formula preparation.

**MAJOR ACHIEVEMENTS**

- Gourmet Nutrition is a member of Canadian Health Food Association and the National Health Products Association

- Gourmet Nutrition has customers worldwide
- The company distributes over 50 lines of health products in Canada alone.

**COMPANY PROFILE**

Sales Volume: \$ < 15 M (1999)  
R&D Expenditure: \$ < 1.0M (1999)  
Employees: 30 +  
Facilities: Manufacturing Plant and Warehouse in Ste-Julie

Ownership: Private  
Trade: Exporting

Export destinations:  
(Please list the country(ies) your company is currently exporting to)

Total exports: N/A  
Percentage of sales exported: 20%

Key Alliances:

- Main distributors in USA, Costa Rica, China , Hong Kong, Panama, Kuwait, Pakistan.
- Custom Manufacturing for a major company in South America

**COMPANY BACKGROUND**

Gourmet Nutrition F.B. Inc is a company based in Quebec and founded in 1988. The company specializes in the field of natural foods. It is directed by Francine and Serge Breton, both having more than 30 years experience in health products.

# ***FUNCTIONAL FOOD & NUTRACEUTICAL TECHNOLOGIES IN CANADA***

---

Gourmet Nutrition has state-of-the-art equipment for processing plants and other ingredients in all forms (various cuts including fine tea-bag cuts and powders). These operations are required to further process the raw ingredients into food grade and pharmaceutical grade products.

All raw materials, materials in process and finished goods are thoroughly tested for integrity and consistency by Gourmet Nutrition's quality control personnel.

## **CURRENT ACTIVITIES**

Gourmet Nutrition F.B Inc. has full packaging capabilities for bottling, sealing, labeling and producing custom-made labels for customers seeking encapsulation and tea-bagging of herbs and food supplements.

The company provides private label packaging for wholesalers and re-sellers.

Phytovie and Herb-Xtra are the company's trademarks for food supplements and herbal teas.

## **DESIRED INVESTMENT**

### **PARTNERSHIPS**

Gourmet Nutrition F.B. Inc. is always looking for:

- Serious distributors of Herb-Xtra and Phytovie brands in other countries
- Custom Manufacturing and Private Labels for clients around the world



## **IMMUNOTEC RESEARCH LTD.**

Address: 292 Adrien Patenaude  
Vaudreuil-Dorion, Quebec  
Canada, J7V 5V5

Telephone: 450-424-9992  
Facsimile: 450-424-9993  
E-mail: info@immunotec.com  
Website: <http://www.immunotec.com>

Contact: Chuck Roberts  
Title: President

### **NATURE OF ORGANIZATION**

Immunotec Research is a leading manufacturer and distributor of quality and innovative health-promoting products.

Immunotec combines rigorous science and business acumen, to deliver a line of dietary supplements, diet aid and related products that contribute to health, vitality and overall wellbeing.

### **MAJOR ACHIEVEMENTS**

- Research leader in the field of milk science
- Published clinical research with flagship product Immunocal (HMS 90). Most recently; Whey Protein Concentrate (WPC) and Glutathione Modulation in Cancer Treatment Anticancer Research International Journal of Cancer Research and Treatment)
- Distributes products to more than 20 countries around the world
- Immunotec's groundbreaking innovations have resulted in numerous patents in North America and around the world
- Immunocal was highlighted at the World Conference on AIDS in 1998

- 2003 was named one of the top 10 fastest growing companies in Quebec

### **ORGANIZATIONAL PROFILE**

|                               |   |
|-------------------------------|---|
| Sales Volume:                 | \$50 - \$100 Million  |
| R&D Expenditure:              | \$500,001 - \$ 1 Million  |
| Employees:                    | 45  |
| Facilities:                   | 32,000 sq. foot head office, Canadian warehousing and shipping center in Vaudreuil-Dorion, QC |
| Ownership:                    | Private   |
| Trade:                        | <ul style="list-style-type: none"> <li>• Exporting</li> </ul>                                 |
| Total exports:                | <ul style="list-style-type: none"> <li>• \$10 - \$50 Million</li> </ul>                       |
| Percentage of sales exported: | <ul style="list-style-type: none"> <li>• 25 - 49.9%</li> </ul>                                |
| Export destinations:          |   |

South America,  
Europe  
Asia  
Africa

### **Key Alliances:**

- Glanbia Nutritionals
- Magistral Biotech Inc.
- Advitech Solutions Inc.

### **ORGANIZATIONAL BACKGROUND**

Chuck Roberts is one of the founding forces of Immunotec. Chuck became Immunotec's President in 1996, when his company joined forces with Immunotec Research Corp., which had 10 years' expertise in research on health-promoting products, to form Immunotec Research Ltd.

Immunotec's products are distributed throughout Canada and the U.S. through their direct selling division as well as through their medical subsidiary.

At Immunotec, research is paramount. Eighteen years of research underlie its flagship product Immunocal or HMS 90 as it is called in Canada. Immunotec's research achievements are testament to their commitment to furthering health research and to tuning the results of that research into products that promote health and wellbeing in the people who use them.

### **CURRENT ACTIVITIES**

At Immunotec, there is a continuing focus on research and product development. Primarily, the R & D department is mandated to develop clinical trials that support Immunotec's global business strategy and validate its industry defining products. It also provides an information interface between its sales force and the medical community, outlining both the therapeutic and prophylactic properties of Immunocal (HMS 90).

Product enhancements, as well as studies on its efficacy in various conditions through actual clinical research are landmarks of Immunotec. An ongoing thrust in new product development is also key to the company.

## **INNOVATIVE CONSULTING SOLUTIONS INC.**

#22, 2917 Georama Road  
Nelson, BC  
V1L 6Y7

Telephone: (866) 352-2740 (toll-free)  
Facsimile: (250) 352-2743  
E-mail: [info@innovating-canada.com](mailto:info@innovating-canada.com)  
Website: <http://www.innovating-canada.com>

Mrs. Tammy Patterson  
Dir. Of Operations

### **NATURE OF BUSINESS**

ICS Inc. is a team of Quality Assurance & Regulatory Affairs specialists. We are a consortium of chemists, biochemists, biologists and microbiologists. We aid developers, manufacturers, marketers and importers / exporters to meet their legal requirements. Our focus is on the pharmaceutical, nutraceutical, cosmeceutical, cosmetics, functional foods, feed and natural health products industries.

Our services span "from cradle to grave" in the life of a product. Examples include:

- performing scientific literature searches;
- performing Drug Submissions;
- helping companies to design, implement and audit their QA programmes (i.e.: GMP, GLP, GCP, HACCP, ISO 17025 and ISO 13485);
- coordinating Clinical Trials;
- performing 3<sup>rd</sup> -party QA audits of manufacturers and labs on behalf of clients;
- ensuring all ingredients, labels and marketing information are compliant to Health Canada, FDA, etc.; and

- managing the entire spectrum of Regulatory Affairs issues to ensure that all paperwork is submitted to the appropriate health authority in a timely and accurate manner.

### **MAJOR ACHIEVEMENTS**

- We have helped well over 200 organizations (in Canada and throughout the world) with their QA/QC programmes, Drug Submissions, Clinical Trials, Labelling materials and Regulatory Affairs issues. These companies range from fewer than 5 people up to some of the world's largest manufacturers.
- ICS has trained over 1,000 people and has presented at a wide variety of conferences.
- We have also been successful in linking Canadian manufacturers with foreign marketers (and vice versa).
- Due to our ever-expanding range of industry contacts, we are uniquely positioned to provide referrals to pre-qualified service providers (such as: raw material & equipment suppliers, commercial labs, contract researchers / manufacturers / processors / packagers / labellers, brokers and translators).

### **COMPANY PROFILE**

|              |             |
|--------------|-------------|
| Sales        | n/a         |
| Volume:      |             |
| R&D          | 10 - 24.9 % |
| Expenditure: |             |

# **FUNCTIONAL FOOD & NUTRACEUTICAL TECHNOLOGIES IN CANADA**

---

Employees: ICS Inc. presently have 5 full-time staff - 4 of which have a minimum of B.Sc., while the other member is a marketing & advertising specialist to the Nutraceutical & Pharmaceutical industries. Each of these staff has at least 15 years of experience in their field of expertise and in management.

- None at the moment.

## **COMPANY BACKGROUND**

ICS Inc. was formed by Dale Enright in June of 1999. Our focus is assisting smaller to mid-size companies throughout Canada, with their QA and Regulatory requirements.

ICS Inc. also has 10 part-time Specialists (which have signed Confidentiality Agreements with ICS Inc.). These specialists include: toxicologists, pharmacists, ethnobotanists, chemical & construction engineers, food scientists, loan & grant application agent, etc.).

Due to our ability to provide exceptional services at highly-competitive pricing and our desire to build mutually beneficial long-term relationships with our clients, we have continually expanded our range of service & expertise by attracting the best people available. If we do not have the internal expertise, we have access to a global network of professionals whom we subcontract on a confidential, case-by-case basis.

Facilities: ICS Inc.'s administrative office is located in beautiful Nelson, BC, with satellite offices in Vancouver BC, Edmonton AB and Saskatoon SK.

Consequently, our client base has now grown to span the globe as a full-service company.

Ownership: Private corporation.

Over the years we have also developed excellent working relationships with various regulatory authorities (i.e.: Canadian Food Inspection Agency, Health Canada, NHP Directorate, FDA, TGA, etc.).

Trade: Importing & Exporting

Export destinations:

- United States
- U.K.
- E.U.
- Asia (China, Japan, Korea)
- Australia

Total exports: n/a

Percentage of sales exported: 40%

## **CURRENT ACTIVITIES**

- We are now focusing much of our QA and Clinical Trials expertise in guiding companies to meet the upcoming NHP regulations.
- ICS Inc. is also involved in linking R&D organizations with manufacturers and with marketers.

Key Alliances:

- We have developed and continually refined both our general and specific training courses on Quality Assurance (i.e.: GMP, GLP, GCP, HACCP, etc.). These courses are also routinely updated to include the constant changes to the regulatory environment and technological & scientific advances within the industry. These training sessions are presented as open seminars and as company-tailored programs.

### **DESIRED INVESTMENT PARTNERSHIPS**

ICS Inc. is open to inquiries concerning mutually beneficial alliances. In unique situations, ICS may forgo some of our up-front service fees for a % of back-end revenues generated by our client's product(s).

## **JAMIESON LABORATORIES LIMITED**

4025 Rhodes Drive  
Windsor, Ontario  
Canada N8W 5B5

Telephone: (519) 974-8482  
Facsimile: (519) 974-4742  
E-mail: none  
Website: <http://www.jamiesonvitamins.com>

Mr. Vic Neufeld  
President

### **NATURE OF BUSINESS**

Jamieson is Canada's leading developer, manufacturer and distributor of natural source vitamins, minerals, herbs, phytonutrients, nutritional supplements and botanical medicines.

Jamieson has built a reputation on the use of natural source ingredients in its products and the pharmaceutical cGMP protocols to ensure premium quality, freshness and purity of products. Specific staff expertise allows Jamieson to perform all vital research in-house, secure ingredients and the best raw materials from a global network of suppliers, and, preserves the integrity of the active ingredients by using a special "dry compression" manufacturing technology. This process is superior to other processes commonly used in the industry in that the integrity and potency of the raw materials are not damaged nor altered by exposure to heat, alcohol and other chemically-altering processes. The company's expertise ensures that products meet their strict guidelines of purity and potency and are free from heavy metals and other unwanted properties.

Jamieson's abilities and talent ensure that all pharmaceutical protocols are met or exceeded, with the mandate that "Quality Means Everything".

### **MAJOR ACHIEVEMENTS**

- 80 years in the health products business
- Manufactures over 350 different product formulations
- Products are formulated, compounded and quality assured in their own research and development pharmaceutical laboratories
- Distributes both finished and bulk products to more than 40 countries around the world
- Established a global network of ingredient suppliers and product distributors
- Jamieson has successfully reformulated and registered over 200 products, as required by certain international health authorities

### **COMPANY PROFILE**

|                               |   |
|-------------------------------|---|
| Sales Volume:                 | \$ 100 – 250 M  |
| R&D                           | \$ 3 M  |
| Expenditure:                  |   |
| Employees:                    | 390   |
| Facilities:                   | Toronto: executive, sales and marketing offices   |
|                               | Windsor: 140,000 sq.ft. manufacturing, R&D, quality control, distribution and support services site |
| Ownership:                    | Private   |
| Trade:                        | Exporting   |
| Total exports:                | \$1 - \$10 Million  |
| Percentage of sales exported: | 10 - 24.9 %   |

#### Key Alliances:

- Council For Responsible Nutrition

- University of Guelph
- Hoffman La Roche
- Bank of Nova Scotia

## **COMPANY BACKGROUND**

Jamieson has pioneered the development of quality natural health care products since 1922. Jamieson is one of the few vitamin companies today that conducts its own research, manufacturing, and distribution. The company employs an experienced, professional research and development staff, consisting of chemists, biochemists, microbiologists, registered nutritionists and phyto-scientists.

Jamieson's products are distributed throughout Canada and the U.S. in drug, mass and grocery outlets and through health food retail and wholesale markets, and internationally through retail and wholesale markets. In Canada, Jamieson serves over 6000 retail outlets. There are five divisions within the corporate umbrella: Jamieson Natural Sources (formulations are positioned for the sophisticated mass retail consumer); Quest (formulations are positioned for the natural healthfood consumer); Wampole (formulations are positioned for the value-conscious mass retail consumer); Promedis (formulations are positioned for professional practitioners in the Bariatric, dermatology and AntiAging fields of medicine); NutriCorp offers private label contracting.

## **CURRENT ACTIVITIES**

Jamieson is active in developing, manufacturing, distributing and marketing products and services for the maintenance of wellness. The company specializes in the following product categories:

- Vitamins & Minerals
- Herbs & Botanical Medicines
- Phytonutrients
- Bio-Food Products

- Skin Care

Jamieson's research team is constantly reviewing scientific and other literature to apply the findings towards innovative and leading-edge products.

## **DESIRED INVESTMENT PARTNERSHIPS**

Jamieson is seeking international distribution agreements for its line of natural source products, based on partners having significant market distribution and excellent marketing skills. Jamieson will lend all necessary regulatory support required for submission to Health authorities. Jamieson awards distribution rights on a market-exclusive basis, with common practice agreement covenants in place.

## **KGK SYNERGIZE INC.**

Suite 1030, One London Place  
255 Queens Avenue  
London, ON  
Canada N6A 5R8

Telephone: (519) 438-9374  
Facsimile: (519) 438-8314  
E-mail: admin@kgksynergize.com  
Website: www.kgksynergize.com

Ms. Najla Guthrie  
President & CEO

### **NATURE OF BUSINESS**

KGK Synergize Inc. (KGK) is a biotechnology company that specializes in nutraceutical and functional food research and development. Currently with a staff of twenty employees, the company operates two divisions: 1) a fast growing contract research organization (CRO) for third parties 2) an in-house nutraceutical product development (NPD) division. The Company's primary focus continues to be on the development and commercialization of proprietary nutraceutical supplements and food ingredients from its own research for the prevention or treatment of medical conditions and/or major diseases. KGK also continues to conduct a growing and profitable business of independent scientific research on nutraceuticals for other established companies. In addition, the Company also maintains a wholly owned subsidiary, KGK Synergize USA Inc., which was recently established to give KGK better access to the U.S. nutraceutical market.

The CRO division offers a wide range of research services to the client from pre-clinical to clinical trials, data analysis and consultation. KGK can assist the client with protocol development and direct them as to the most beneficial studies to help them meet their objectives. KGK is dedicated to providing clients with top quality service and is currently in the process of becoming ISO 9001 certified.

The NPD division experiments with new natural compounds for their therapeutic values. It implements various screening techniques to develop nutraceutical and functional food products to the point where they are ready to manufacture and market. This division currently holds two issued patents and has eight pending in the areas of anti-cancer, cardiovascular, diabetes and anti-inflammatory.

### **MAJOR ACHIEVEMENTS**

- KGK secured a private equity finance (March, 2004)
- KGK named as a finalist for the Innovation Award category for the London Chamber of Commerce Business Achievement Award. (February 2004)
- Licensed out dietary supplement market from our first patent, a cholesterol lowering product, Sytrinol™, now available in the U.S.
- Expanded laboratory facilities to the London Health Sciences Centre and established an in house clinical site. Filed four patents for new discoveries
- Established alliances with major nutraceutical/biomedical companies worldwide
- Contributed professional papers at international scientific meetings

### **COMPANY PROFILE**



Sales \$ 1,500,000  
Volume:  
R&D \$ 400,000  
Expenditure:  
Employees: 20  
Facilities: In-house laboratory and animal facilities, as well and an in-house clinic for conducting clinical trials.  
Trade: Contract Research  
Ownership: Private

### Key Alliances:

- London Health Sciences Centre
- London Regional Cancer Centre
- The University of Western Ontario
- University of Guelph
- Industrial Research Assistance Program of the National Research Council of Canada
- United States Department of Agriculture

## **COMPANY BACKGROUND**

KGK Synergize Inc. was established in August 1997 as a spin off from the University of Western Ontario's Centre for Human Nutrition. The company was founded by three university scientists associated for many years with the Centre for Human Nutrition, The University of Western Ontario, London, ON, Canada. The founding members are Ms. Najla Guthrie, President & CEO, Dr. Elzbieta (Ela) M. Kurowska, Vice-President of Research & Development and the late Dr. Kenneth K. Carroll, formerly the Centre's Director and company's Vice-President and Senior Scientist.

With its proven record of fast development, KGK Synergize is quickly becoming a leader in the Canadian nutraceutical industry.

## **CURRENT ACTIVITIES**

KGK Synergize current research is focused on:

### CRO:

- Development of in vitro and in vivo models of inflammation
- Acute and chronic toxicity animal models
- Development of in vitro and in vivo models of Type II Diabetes
- Development of *in vitro* and *in vivo* models of prostate, breast, brain and skin cancer for evaluating the anti-cancer activity of compounds

### NPD:

- Ongoing clinical trial for colon cancer prevention
- Ongoing clinical trial for cholesterol-lowering properties
- Clinical trial for type II Diabetes is in progress
- Clinical trial for skin cancer prevention is in progress
- Phase I clinical trial in breast and prostate cancer patients is in progress

## **DESIRED INVESTMENT**

## **PARTNERSHIPS**

KGK Synergize Inc. is dedicated to providing food and nutraceutical companies with the means to scientifically evaluate the health benefits of compounds, as well as to develop nutraceutical products.

Thus, the company is interested in collaborative arrangements with:

- nutraceutical companies who can manufacture and market products as dietary supplements;
- food manufacturers, who can provide by-products for the extraction of nutraceutical products; and
- food producers who are interested in evaluating their products and/or byproducts for health benefits

The company is open to all questions and enquiries regarding these subjects and is

interested in participating in technology transfer activities with companies and research organizations, both in Canada and abroad.

**LALLEMAND INC.**

1620 rue Préfontaine  
Montreal, QC  
Canada H1W 2N8

Telephone: (514) 522-2133  
Facsimile: (514) 522-2884  
E-mail: none  
Website: <http://www.lallemand.com>

See also Institut Rosell-Lallemand

**NATURE OF BUSINESS**

Lallemand, together with its subsidiaries, offers a unique range of bacteria, yeast extracts, mineral enriched yeasts and fermentation nutrient ingredients. It produces a wide range of organic acid salts for the food and pharmaceutical industries, as well as a wide range of micro-organisms used in the production of naturally fermented foods and for agricultural and probiotic uses. Lallemand is also a leading supplier of baker's yeast in Canada. Due to its original focus on specialized yeast strains, Lallemand has become the largest producer and marketer of specialty strains for wine and distilled products in the world. Product development is supported by a strong in-house research and development division as well as joint projects varying from production control to genetic engineering.

**MAJOR ACHIEVEMENTS**

- In early 1997, Lallemand acquired Primalco Biotech Specialty Yeast, based in Finland, from Alko Limited, Finland. Products acquired included selenium and chromium enriched yeast, and Fibrosel, a defined yeast extract.
- Obtained a patent on the "In Ovo" concurrent use of an antibiotic and microbial treatment to diminish Salmonellae populations in avians

**COMPANY PROFILE**

Sales Volume: \$250 M

R&D Expenditure: 2% of gross sales

Employees: 500 employees worldwide

Facilities: R&D laboratory and pilot plant  
Laboratory at the Biotechnology Research Institute of the NRC in Montreal  
Laboratory in Toulouse, France

Ownership: Private

**Key Alliances:**

- Laval University
- McGill University
- The Research Centers of Agriculture Canada
- Biotechnology Research Institute, Montreal
- National Institute for Agricultural Research (France)
- Chemical Engineering Institute (France)
- Berlin Technical University (Germany)
- USDA (Georgia, U.S.A.)
- Kansas State University (Kansas, U.S.A.)
- Michigan State University (Michigan, U.S.A.)
- Technical Institute of Gruyere
- Bio-Inova
- Institute Armand Frappier – INRS
- Acadia University
- Hospital for Sick Children ,Toronto

**COMPANY BACKGROUND**

The Lallemand plant has been in operation since 1915. A company originally specializing in vegetable shortenings for the Canadian baking trade, Lallemand has evolved to its current position as a world leader in the production and marketing of specialty yeasts. In 1983, Lallemand established a permanent base in Europe with a warehouse, sales office and laboratory

in France. In 1985, the company acquired Malone Oil, which produced pan oils and trough greases. In 1986, it acquired a supplier of propionates that also produced salts of other organic acids, which had applications in the food and drug markets. A new company, Macco Organiques Inc. was created to explore these applications. Lallemand continued to acquire complementary facilities and companies such as Danstar production facilities in Denmark, Equilait/Equipharm in France, American Yeast Sales Company, and the American Yeast Corp. plant in Baltimore, Maryland. In 1993, Lallemand acquired Quali Tech's fermentation business in Minneapolis, Minnesota. Since 1996, it procured additional fermentation capacity through the acquisition of production facilities located in Estonia, Austria and Germany. Further, in 1997, Lallemand acquired Primalco Biotech Specialty Yeast of Alko in Finland. Lallemand also acquired Institut Rosell in 1998.

### **COLLABORATIVE ARRANGEMENTS SOUGHT**

Lallemand Inc. is seeking companies in either or both the nutraceutical or animal businesses who are interested in developing partnerships to explore specific research applications for yeast, bacteria, oligosaccharides and mineral enriched yeast.

Inquiries pertaining to product distribution are welcome.

### **CURRENT ACTIVITIES**

The objectives of Lallemand's research efforts are:

- to stay abreast of the developments in the field of biotechnology, microbiology and engineering
- to improve the quality of its products
- to continuously improve the productivity of its processes

Current research projects include:

- Partnering with the USDA in a major project to investigate methods that utilize various purified strains of yeast and their potential to reduce the incidence of Salmonella, Clostridium and Campylobacter in poultry carcasses
- Screening for strains of yeast that can organically bind the highest levels of trace minerals
- The development of production methods for mineral-binding yeast strains
- Investigation of the methodology that provides the maximum longevity of various lactic acid bacteria
- The development of yeast for frozen dough
- Refining its yeast identification method by DNA fingerprinting

Institut Rosell, a subsidiary, is actively involved in the study of lactic acid bacteria for their bacteriostatic properties against human pathogens.

## **MEKIWIN CORPORATION**

Box 81  
Gladstone, Manitoba  
Canada , R0J 0T0

Telephone: (204) 385-3374  
Facsimile: (204) 385-3250  
E-mail: info@mekiwin.com  
Website: <http://www.mekiwin.com>

Ivan Milne  
President

### **NATURE OF BUSINESS**

Mekiwin Corporation is involved in the development of production and processes of products to serve the Nutraceutical and health food markets utilizing new and alternative crops supplied by local Manitoba markets. The company works with producers and distributors to help them identify processing opportunities within the herbal supplement market. Mekiwin uses its knowledge to produce top quality herbal supplements in accordance with Health Canada regulations that can be marketed worldwide.

With the help of the University of Manitoba Food Science Centre in identifying processing methods and test procedures that maximize the active ingredients in crops, Mekiwin is now positioned to provide top quality products.

### **MAJOR ACHIEVEMENTS**

- Mekiwin constitutes 80,000 acres of land available for crop production
- After spending two years on research and development, Mekiwin is now positioned to maximize the active ingredients in crops
- Mekiwin follows good manufacturing practices throughout all of its processes
- Mekiwin 's pasteurization process is state-of-the-art and is a totally natural process

### **COMPANY PROFILE**

|                  |                                       |
|------------------|---------------------------------------|
| Sales Volume:    | \$ 0.25 M (1999)                      |
| R&D Expenditure: | \$ 0.5 M (1999)                       |
| Employees:       | 8                                     |
| Facilities:      | 80,000 acres available for production |
| Ownership:       | Private                               |

#### Key Alliances:

- Department of Agriculture of Manitoba
- University of Manitoba Food Science Department
- National Research Centre/Industrial Research Assistance Program/ Agricultural Research & Development Initiative/ Western Diversification

### **COMPANY BACKGROUND**

Mekiwin Corporation was formed in 1996 to help Manitoba producers develop production and processing of products to serve the nutraceuticals and health food markets utilizing new and alternative crops supplied by local Manitoba producers. Mekiwin has established itself over the last 3 years in Gladstone, Manitoba with the acquisition of land and buildings on seventeen acres. The company started with 15 southern Manitoba growers constituting 80,000 acres of land.

Mekiwin had worked closely with the Department of Agriculture of Manitoba and the University of Manitoba Food Sciences Department to develop growing and processing standards for alternative crops such as Horseradish, Echinacea, Valerian, Milk Thistle and Hemp. This collaboration helped the company follow all aspects of product development with hazard analysis and critical control point and good manufacturing practice guidelines.

## ***FUNCTIONAL FOOD AND NUTRACEUTICAL TECHNOLOGIES IN CANADA***

---

The company does their own internal research and development. The staff works directly with the University of Manitoba Food Science Department which at the present time is located on its campus. The company's staff has degrees in many disciplines including chemistry, nutrition, dietetics and microbiology.

### **CURRENT ACTIVITIES**

- In spring 2000, Mekiwin facility will be built. All of the procedures and equipment will be moved to its central location in Gladstone, Manitoba. This location is ideal for transportation since it will be located in the middle of the company's grower base
- Mekiwin is consistently and extensively testing its product for active ingredients
- The company is producing products such as the Natural Horseradish, a totally natural horseradish product that has been developed by Mekiwin technologies

### **COLLABORATIVE ARRANGEMENTS SOUGHT**

Mekiwin Corporation is seeking collaboration arrangements with prospective strategic partners. Mekiwin is seeking companies with products that fit well with current philosophies. Mekiwin is strong in process and product development. Prospective partners would be companies with capabilities to maintain and grow specialized crops that cannot grow in Manitoba.

## **NATURAL FACTORS NUTRITIONAL PRODUCTS LTD.**

1550 United Boulevard  
Coquitlam, British Columbia  
Canada V3K 6Y7

Telephone: (604) 777-1757  
Facsimile: (604) 777-1735  
E-mail: [admin@naturalfactors.com](mailto:admin@naturalfactors.com)  
Website: <http://www.naturalfactors.com>

Roland Gahler, FICN  
Executive Chairman

Michael Hobson  
President & CEO

### **NATURE OF BUSINESS**

Natural Factors Nutritional Products Ltd. is a leader in North America's natural health products industry. For more than 50 years, the Company has been producing superior quality phytomedicinal and nutritional remedies, vitamins, mineral products, and other supplements. Innovative product development and one of the largest manufacturing capacities in North America, enable the Company to create more than 300 quality products. Natural Factors distributes its products through natural health food stores to consumers throughout North America and around the world.

### **MAJOR ACHIEVEMENTS**

- Development of unique, condition-specific functional foods for major health needs.
- Extensive university-based research into immunity and phytomedicinal effectiveness.

- Creation of new analytical techniques for phytomedicinal testing and ground-breaking research.
- Leader in the Canadian health food industry by sales and recognized expertise and integrity.
- Establishment of one of the finest Medical and Science Advisory teams in North America, assisting with product development, formulation and testing.
- Recognized by the Canadian Health Food Association and the International College of Nutrition as leaders in basic and original research into the effectiveness of phytomedicinals.

### **COMPANY PROFILE**

|                               |   |
|-------------------------------|---|
| Sales Volume:                 | N/A   |
| R&D Expenditure:              | N/A   |
| Employees:                    | 600   |
| Facilities:                   | Primary manufacturing and R & D facilities in Coquitlam; Organic farms, laboratories, extraction and manufacturing operations in Kelowna, BC; additional administrative, manufacturing and distribution facilities in Burnaby, BC, Mississauga, Ont. and Everett, WA, USA |
| Ownership:                    | Private   |
| Trade:                        | Domestic & Export   |
| Export destinations:          | United States, Japan, China, Singapore, Malaysia, Indonesia, Taiwan, Lebanon<br>Western Europe  |
| Total exports:                | N/A   |
| Percentage of sales exported: | N/A   |

Key Alliances:

- Canadian Center for Functional Medicine
- University of British Columbia
- University of Alberta
- Dalhousie University, NS
- Institute of Pharmacognosy, University of Graz, Austria
- Centre for Integrated Healing

- Vitamins
- Multi-Vitamins & Minerals
- Mineral products
- Enzyme products
- Acidophilus / Probiotic products
- Specialty supplements: e.g., Glucosamine & Chondroitin Sulfates, Enriching Greens, Essential Fatty Acids, Phospholipids, etc.
- Single and combination phytochemicals
- Specialty products for men, women and children

### **COMPANY BACKGROUND**

Established in Canada more than 50 years ago, Natural Factors has expanded steadily by focusing on quality and research, to guarantee the purity, potency and effectiveness of its products. This family business has grown from a dedicated handful of people to more than 600 employees throughout North America. Using the most advanced technological equipment, processes and expertise, Natural Factors has established and continues to maintain consistent reliability and effectiveness of natural products through its extensive herbiculture, laboratory and manufacturing facilities.

Natural Factors has gained a reputation for innovative science and superior product quality through its diligence in product development and testing and its investment in quality control. The Company meets and/or exceeds GMP and GLP standards. Natural Factors' head office and major production and laboratory facilities are located in Coquitlam, British Columbia, Canada. Natural Factors serves Eastern Canada with its offices in Mississauga, Ontario, and American customers from the U.S. Sales & Distribution Centre in Everett, Washington.

### **CURRENT ACTIVITIES**

Research, Development and Manufacturing of Natural Products including:

- Functional Food Products (Healing Foods™)
- Nutraceuticals

### **DESIRED INVESTMENT PARTNERSHIPS**

Governments and Universities



## **NATURALLY NOVA SCOTIA HEALTH PRODUCTS LTD.**

2769 Lawrencetown Road  
Dartmouth, Nova Scotia  
Canada B2Z 1L3

Telephone: (902) 434-7206  
Toll-Free: (800) 292-6256  
Facsimile: (902) 435-3698  
E-mail: [natns@netcom.ca](mailto:natns@netcom.ca)  
Website: <http://naturallynovascotia.com>

Mrs. Nancy Smithers  
President

### **NATURE OF BUSINESS**

Naturally Nova Scotia Health Products Ltd. is a vertically integrated organic herbal products producer. Our ever-increasing certified organic product line includes alcohol and glycerin based extracts as well as a variety of encapsulated herbs and teas. Our products can be purchased in Canada, Hong Kong, Japan and the Carribean.

Naturally Nova Scotia uses freeze drying and cryogenic grinding to produce superior quality whole herb, herbal remedies. Our herbs are dried at subzero temperatures under vacuum which removes 100% of the moisture leaving the active ingredients intact. Studies have proven that this method of drying is far superior to air or microwave drying which can harm the active ingredients in the herbs. Our herbal preparations are more potent, more effective and can be more easily absorbed into the bloodstream than many other products available on the market.

### **MAJOR ACHIEVEMENTS**

Naturally Nova Scotia goes beyond the required industry testing to serve its customers better. We test for purity, potency and the shelf life of our products. Our herb farm and production facility has been certified organic by Quality Assurance Intl., OCPP and JAS (Japan) and we also hold a valid production site licence from Health Canada, Natural Health Products Directorate. We were one of the very first herbal manufacturers in North America to achieve ISO 9002 registration. These certifications are the stamp of approval for irreproachable industry standards. Very few companies have taken the steps Naturally Nova Scotia has taken to ensure that our products and services not only meet, but exceed industry requirements to guarantee product integrity in all of our herbal remedies.

### **COMPANY PROFILE**

Sales Volume: \$1,000,000 plus

R&D Expenditure: \$ 300,000.

Employees: 14

Facilities: 240 acre, certified organic herb farm  
Laboratory, production, office and warehousing facilities are also at this location

Trade: Exporting

Export destinations:
 

- Japan
- Europe
- USA
- Carribean

Total exports: \$500,001 - \$ 1 Million

Percentage of sales exported: 50%

Ownership: Private

Key Alliances:

- National Research Council of Canada

### **COMPANY BACKGROUND**

Naturally Nova Scotia started as a small family operation in 1994, preparing herbal remedies out of a home kitchen and basement. Our facilities have expanded to a 250-acre certified organic farm along the Atlantic Ocean on Nova Scotia's ruggedly beautiful eastern shore. Our herbs are Canadian grown and 100% certified organic.

### **CURRENT ACTIVITIES**

Naturally Nova Scotia is committed to the production of the finest herbal remedies and offering consumers a broad range of exceptional quality natural products.

Naturally Nova Scotia's herbal compounds are formulated to provide the maximum support for the greatest number of individuals. Herbs have been carefully chosen based on their effectiveness and mutual synergy. The properties of these herbs support and amplify each other so that the effect of the whole combination is greater than that of the individual components.

Naturally Nova Scotia's products are scientifically validated. Health Canada and other world health organizations have stated there is a need for more industry testing for active ingredients in herbal remedies. Naturally Nova Scotia is a leader in the industry because we use the most advanced science to ensure that our herbal products are potent and effective.

### **DESIRED INVESTMENT PARTNERSHIPS**

Naturally Nova Scotia seeks collaborative arrangements with companies developing new, innovative products in the nutraceutical field. The company would be interested in negotiating supply agreements with companies seeking raw materials for herbal products. The company would also be interested in negotiating distribution agreements for its products in North American and European markets.

**NATURE'S FORMULAE  
HEALTH PRODUCTS LTD.**

132-1135 Stevens Road  
Kelowna, British Columbia  
Canada V1Z 1G1

Telephone: (250) 769-3970  
Facsimile: (250) 769-3819  
E-mail: master@cnx.net  
Website: none

Ms. Barbra Johnston  
President

**NATURE OF BUSINESS**

Nature's Formulae Health Products specializes in the manufacture of medicinal products from herbs. The company produces an extensive line of herbal preparations in various forms including tinctures, extracts, tonics and ointments. Nature's Formulae has developed a proprietary extraction technology that protects the bioactive ingredients of herbs during processing. This ensures the potency and efficacy of the product.

In addition to their own products, the company offers custom manufacturing services.

**MAJOR ACHIEVEMENTS**

- 26 years of experience in the manufacture of herbal products
- First certified organic facility for manufacturing herbal products in Canada
- Over 500 pure herbal preparations

- Master Formulae and NaturTech Labs are registered trademarks of Nature's Formulae Health Products
- Negotiated six contract manufacturing agreements
- GMP certified manufacturing facility
- Recognized for their work with local organic herb growers and the support and promotion of local agriculture
- Recognized for the support of the Canadian College of Naturopathic Medicine

**COMPANY PROFILE**

Sales Volume: \$ 2.0 M  
R&D \$ 150,000  
Expenditure:  
Employees: 20

Facilities: 12,000 sq.ft. manufacturing plant  
Ownership: Private  
Trade: Trading  
Exporting  
Export ready, but not yet exporting  
Not Exporting

Export destinations:  
Total exports: N/A  
Percentage of sales exported: N/A

Key Alliances:

- University College of the Cariboo
- Pacific Agri-Food Research Centre

**COMPANY BACKGROUND**

Originally established in 1974 as Master Formulae, the company began as a supplier to Naturopathic Doctors and other health professionals. In 1996, the company branched out and began its retail business, selling products under the name Master Formulae. The company continued to market product under their own labels.

In addition to its own product lines, Nature's Formulae Ltd. provides custom manufacturing for companies who market product under their own labels. Custom manufacturing currently represents 40% of the company's total sales.

## **CURRENT ACTIVITIES**

Through research and development, Nature's Formulae is actively extending its line of herbal products with a focus on the production of liquid extracts and tinctures. Compared to solid preparations (i.e. tablets, capsules), and offer greater therapeutic effectiveness.

The company is involved in research collaborations with the University College of the Cariboo and the Pacific Agri-Food Research Centre. In cooperation with researchers at these institutions, the company assays herbs and herbal compounds as well as conducting research on new herbal varieties.

Nature's Formulae Health Products Ltd. also works in close association with organic herb growers in British Columbia. The company purchases herbs for product manufacturing and also acts as broker and distributor for growers. Currently the company has established twenty (20) working partnerships with growers in the province and through these partnerships is capable of providing a wide variety of herbs in commercial volumes.

## **DESIRED INVESTMENT**

### **PARTNERSHIPS**

Nature's Formulae Health Products Ltd. is interested in negotiating:

- Marketing and distribution agreements for its products in foreign markets
- Manufacturing agreements for companies wishing to market and distribute herbal products
- Joint product development agreements with companies or organizations

## **NUTRI-CHEM PHARMACY**

1303 Richmond Rd.  
Ottawa ON  
Canada K2B 7Y4

Telephone: (613) 820-9065  
(888)384-7855  
Facsimile: (613) 829-2226  
E-mail: info@nutrichem.com  
Website: <http://www.nutrichem.com>

Kent MacLeod  
Owner & Founder

### **NATURE OF BUSINESS**

Nutri-Chem is a multi-faceted business comprising a retail establishment, dispensary, compounding laboratory, wellness center, and a biochemical/nutritional testing facility. Nutri-Chem employs a professional staff of pharmacists, clinical biochemists and health counselors. Their combined expertise encompasses pharmaceuticals, nutritional and herbal supplements, homeopathy and lifestyle counseling.

Nutri-Chem Pharmacy is committed to researching metabolic disturbances and documenting the effects of nutritional supplementation.

### **MAJOR ACHIEVEMENTS**

- Nutri-Chem Pharmacy has been the topic of many magazine and newsletter articles, TV news and specials, and even featured in leading health books.
- In 1997 Kent MacLeod was awarded the Distinguished Practice Award by the Ontario Pharmacists Association.

- The expertise of Nutri-Chem Labs led to the development of a state-of-the-art clinical and research laboratory, ICMT (International Center for Metabolic Testing).
- First to publish evidence of *in vivo* oxidative damage in Down syndrome.

### **COMPANY PROFILE**

|                               |   |
|-------------------------------|---|
| Sales Volume:                 | \$ 5,000,000  |
| R&D Expenditure:              | \$250,000   |
| Employees:                    | 30  |
| Facilities:                   | - 4000 sq.ft. retail, offices, and compounding laboratory<br>- 1800 sq.ft. for clinical research<br>- Distribution centers in New York and the U.K. |
| Trade:                        | Exporting   |
| Export destinations:          | United States<br>Great Britain<br>Australia/New Zealand   |
| Total exports:                | \$150,001 - \$250,000   |
| Percentage of sales exported: | 2.5 - 4.9 %   |
| Ownership:                    | Private   |

#### Key Alliances:

- Ontario Pharmacists Association
- Canadian Pharmaceutical Association
- Professional Compounding Centers of America
- International Society for Orthomolecular Medicine

- National Research Council
- Canadian Schizophrenic Foundation
- Giant Steps School for Autism

## **COMPANY BACKGROUND**

Nutri-Chem Pharmacy has been serving the needs of the local Ottawa community since 1981. Through the efforts of our founder Kent MacLeod, we have grown from offering our unique expertise locally into Canada's largest compounding center and an international leader in nutritional research and supplementation.

Nutri-Chem Labs' custom compounding laboratory produces a wide range of products including vitamin and mineral supplements, multivitamins, sunscreens, moisturizing creams and medicinal lozenges. The laboratory specializes in customizing individual nutritional formulas in response to analysis of laboratory testing. Nutri-Chem Labs ships formulations and information packages world-wide.

## **CURRENT ACTIVITIES**

Nutri-Chem preserves its commitment to health maintenance and disease prevention through innovative products, educational seminars, and easy access to health professionals. Our current services include:

- Corporate Wellness Programs
- Customized supplements
- Nutritional support for cancer patients
- Osteoporosis prevention programs
- Heart Health promotion
- Nutritional analyses using GC-MS, HPLC

## **DESIRED INVESTMENT**

### **PARTNERSHIPS**

- Trace mineral assessment related to health and disease
- Oxidative chemistry analyses - glutathione, prostaglandins and novel oxidative markers
- Investigation of the role of fatty acids in mental health
- Nutraceutical and herbal standardization - assessment and implementation

**PHARMASCIENCE INC.**

6111 Royalmount Suite 100  
Montreal, Quebec  
Canada H4P 2T4

Telephone: (514) 340-1114  
Facsimile: (514) 340-0656  
E-mail: [resverin@pharmascience.com](mailto:resverin@pharmascience.com)  
Website: <http://www.pharmascience.com>  
<http://www.resverin.com>

David W. Goodman  
Vice-President, Business Development

**NATURE OF BUSINESS**

Pharmascience is a leading Canadian developer, manufacturer, and distributor of ethical, generic and over-the-counter products.

**MAJOR ACHIEVEMENTS**

- Fully integrated pharmaceutical company capable of researching, developing, producing and distributing its products
- Compounded annual sales growth of 38 % since the company's founding in 1983
- Product distribution in over 20 countries
- In-house manufacturing of over 600 stock keeping units (SKU's)
- More than 90 % of the products are manufactured in-house
- Established its own GMP pilot plant for product formulation development and small scale production
- Dedicated 10% of sales revenue to research & development
- First to introduce a pure form of trans-Resveratrol under the trademark Resverin®
- Therapeutics Products Program-approved bioanalytical laboratory to measure plasma drug levels from clinical studies

**COMPANY PROFILE**

Sales Volume: > \$ 170 M

Exports: \$ 5 M

R&D \$ 14 M

Expenditure:

Employees: 486 (110 R&D and regulatory affairs, 8 Ph.D.'s)

Facilities: TPP approved large scale and pilot scale manufacturing  
Distribution centre serving hospital, pharmacy customers and wholesalers

Ownership: Private

Key Alliances:

- Eli Lilly
- Novartis
- Schering

**COMPANY BACKGROUND**

Pharmascience was established in 1983 by two pharmacists, each with more than 35 years in industrial and retail pharmacy. Starting in 1983 with two innovative drugs, 15 generics and 10 types of vitamins, the company now has more than 330 quality brand name and generic products.

Pharmascience believes in growth through partnerships. The company searches the world for joint ventures, licensing opportunities, distribution agreements and equity financing arrangements. In fact, 20% of their research and development budget is dedicated to global joint development. The company has distribution agreements with companies in more than 20 countries; sales offices in New York, London, Kiev and Moscow; and product co-development agreements with companies in the U.S., Europe, Asia, India and South America

## **CURRENT ACTIVITIES**

Pharmascience is active in the research, development, manufacture and marketing of an extensive range of products. These products include brand name and generic drugs, over-the-counter preparations, and compliance devices.

The company also produces Resverin®, a pure form of resveratrol. This compound is a phytoalexin that is naturally occurring in red wine. In scientific studies resveratrol has been shown to have significant antioxidant and chemopreventive properties. Pharmascience is currently conducting preclinical and clinical studies on the activities of Resverin® and is developing novel dosage forms containing the product.

## **COLLABORATIVE ARRANGEMENTS SOUGHT**

Pharmascience has the resources, capability and flexibility to participate at any stage in the product development cycle – from research to approval to marketing. The company also has established a worldwide distribution network.

The company seeks alliances with companies or universities for joint development of innovative products, distribution of ready-made products, and for technology transfer.



## **PHYTOGEN LIFE SCIENCES INC.**

1527 Cliveden Avenue  
Delta, British Columbia  
Canada V3M 6P7

Telephone: (604) 525-5052  
Facsimile: (604) 525-5059  
E-mail: [infonews@phytogen.com](mailto:infonews@phytogen.com)  
Website: <http://www.phytogen.com>

Hai S. Foo  
President, CEO & Acting Chairman of the Board

### **NATURE OF BUSINESS**

Phytogen Life Sciences Inc. is a privately held Canadian company that is dedicated to the manufacture of active pharmaceutical ingredients produced from natural sources.

Phytogen's mission is to be a primary manufacturer and supplier of active pharmaceutical ingredients (APIs) of the highest quality and purity to the traditional pharmaceutical and emerging phytopharmaceutical industries.

### **MAJOR ACHIEVEMENTS**

- Phytogen has entered into a license and supply agreement with Mylan Pharmaceuticals, Inc. for the production of generic paclitaxel finished drug product for the North American and Mexican oncology markets and is positioned to enter other global markets through ongoing discussions with potential partners and API customers

- Phytogen's state-of-the-art, 22,000 square feet production facility in British Columbia is operated in accordance with the US regulatory requirements
- In June 2001, Phytogen completed its second US Food and Drug Administration and Canadian Health Protection Branch pre-approval inspections of its facility and processes with respect to the Company's production of paclitaxel API
- Paclitaxel is the best selling anti-cancer drug ever with worldwide sales in 1998 exceeding US \$1.2 billion, and are expected to grow as new applications for its use are approved
- Phytogen has received the official Notice of Allowance from the U.S. Patent office for its proprietary high yield, large scale paclitaxel process and its resultant product composition and also a US patent for its method of producing etoposide, another anti-cancer drug

### **COMPANY PROFILE**

|                               |  |
|-------------------------------|--|
| Sales Volume:                 | \$ 500,000 - \$ 1 million                |
| R&D Expenditure:              | \$ 1.9 M (1999)                          |
| Employees:                    | 34                                       |
| Facilities:                   | 22,000 sq. ft. production facility in BC |
| Ownership:                    | Private                                  |
| Trade:                        | Exporting                                |
| Export destinations:          | United States                            |
| Total exports:                | n/a                                      |
| Percentage of sales exported: | n/a                                      |

# ***FUNCTIONAL FOOD & NUTRACEUTICAL TECHNOLOGIES IN CANADA***

---

Key Alliances:

- Mylan Pharmaceuticals
- Sinphar Pharmaceutical Co. Ltd. (Taiwan)

## **COMPANY BACKGROUND**

Phytogen is committed to producing high quality API, and to developing a strong reputation for continuity of supply. Phytogen believes that it has developed a competitive advantage in its ability to source important raw materials through the solid relationships it has established in Canada and China with suppliers of raw materials used in the production of APIs. The Company's exclusive access to certain essential raw materials places it in an excellent position to enter long-term supply contacts with pharmaceutical companies for the current Good Manufacturing Practices (cGMP) production of cost competitive APIs.

## **CURRENT ACTIVITIES**

Phytogen has expertise in the extraction, isolation, purification and production of APIs derived from plants and other natural sources that can then be incorporated into regulated, finished prescription products to be sold by others.

Phytogen's first commercial product, paclitaxel is used for the treatment of ovarian, breast and non-small cell lung cancers and the treatment of AIDS-related Kaposi's sarcoma.

Phytogen's business strategy is to build upon its specialized core competency of manufacturing high quality, low-cost APIs for proven anti-cancer and related treatments in regulated pharmaceutical markets that are under-served in terms of quality, quantity and/or cost.

## **DESIRED INVESTMENT**

### **PARTNERSHIPS**

Phytogen is actively pursuing other global partnerships for the marketing of its paclitaxel API.

Additionally, the Company plans to collaborate and license certain patentable technologies for those products, such as natural anti-cancer drugs for development and commercialization.

## **PURESOURCE NATURAL PRODUCTS**

7018 Hwy 24 South  
Guelph, ON  
Canada N1H 6J4

Telephone: (519) 837-2140  
Toll Free: (800) 265-7245 ext. 225  
Facsimile: (519) 837-1584  
Email: [matt.lebeau@puresource.ca](mailto:matt.lebeau@puresource.ca)  
Website: <http://www.puresource.ca>  
<http://www.herbalselect.com>  
<http://www.realgreen.ca>  
<http://www.simplyclean.ca>  
<http://www.alpheaca>

Matt LeBeau - Sale Manager

### **NATURE OF BUSINESS**

PureSource, located in Guelph, Ontario, is a full service natural products distributor/manufacturer supplying retailers from British Columbia to Newfoundland with regular product delivery and natural product category management support. We also sell to Mexico, Europe, Sweden, USA and China.

PureSource has an inventory of over 6000 natural product and represents more than 200 product lines of manufacturers from around the world. Puresource is the manufacturer of these leading natural product brands: Herbal Select – herbal supplements, Purely Bulk – nutritional foods, Simply Clean – environmentally responsible household cleaning products, In Your Face – natural snacks and The Real Organic Bars (Real Berry, Real Green, Real Tropical), Alpheaca – PMS and Menopause formulas, Omega-Life – flax oil margarine with no trans fat or cholesterol, Just Juice – not from concentrate organic juice line.

### **MAJOR ACHIEVEMENTS**

- PureSource is the first Canadian natural products distributor to achieve ISO 9000 certification.
- PureSource has been recognized by Profit magazine as one of the fastest growing Canadian companies for 1997, 1998, 1999 (short-listed) and 2000.
- PureSource is the founding member of the Natural Health Products Technology Cluster which includes industry members from across Ontario.
- Opened their western warehouse in 2003 to provide superior service to the west.

### **COMPANY PROFILE**

|                               |   |
|-------------------------------|---|
| Sales Volume:                 | 50 million  |
| R&D Expenditure:              | < 2.5%  |
| Employees:                    | 125   |
| Facilities:                   | 45 000 sq. ft (distribution centre)<br>7,500 sq. ft. (production facility)<br>20 000 sq ft- calgary |
| Ownership:                    | Private   |
| Trade:                        | Exporting   |
| Export destinations:          | USA, Britain,<br>Sweden, Austrailia Mexico  |
| Total exports:                | Greater than \$500,000  |
| Percentage of sales exported: | < 2.5%  |

#### Key Alliances:

- University of Guelph, Human Nutraceutical Research Unit
- National Foundation for Hepatitis-C

- Bioriginal Food and Science Corporation
- Now Foods Inc.
- The Herb Works

### **COMPANY BACKGROUND**

PureSource was founded in 1989 to fill a need for better distribution of natural products to Canadian retail outlets. Their mission is to market innovative natural products that optimise health and wellness. The company will accomplish its mission through a vigorous commitment to quality and value in its products and services. Success is measured by superior customer satisfaction, market leadership and continued growth and development of the company's employees, customers and suppliers. Since its inception, the company has been actively promoting and creating the demand for natural health products while improving consumer access to these products.

PureSource is a member of the Canadian Health Food Association and the Canadian Association of Chain Drug Stores.

### **CURRENT ACTIVITIES**

PureSource selection of products include:

- Natural body care products
- Special dietary foods
- Aromatherapy
- Homeopathic Remedies
- Herbal Remedies
- Herbal Teas
- Organic grain beverages and juices
- Vitamins
- Natural and Organic Foods
- Natural and Organic Snacks
- Books & Literature

Distribution takes place from our main facility in Guelph, Ontario and our western warehouse in Calgary, Alberta. PureSource has a fleet of 4 climate controlled trucks serving the Ontario market and uses common carriers and couriers for other markets.

PureSource currently provides custom manufacturing services for some of our retail clients and has the capability to design and manufacture specialized natural products such as specialized herbal and nutritional supplements and meal replacement products.

### **MANUFACTURED BRANDS**

Puresource Manufactured Brands are among the leaders in the market place. Herbal Select Essential Fatty Acids are one of the fastest growing in the market. Real Organic Bars are the leading organic dried fruit snack bar. Omega-Life is the only trans-free, cholesterol-free flax oil margarine, offering variety to the marketplace. Alpea is the only PMS and Menopausal symptom solution that combines essential fatty acids and herbs. All of Puresource's Manufactured brands offer unique, quality products with the common desire to improve health and wellness. For more information about Puresource Manufactured Brands call 1-888-313-3369.

### **DESIRED INVESTMENT PARTNERSHIPS**

Marketing opportunities for PureSource's manufactured brands and custom manufacturing in major International markets.

Seeking distribution arrangements with Canadian manufacturers of natural products.

## **SANGSTER'S HEALTH FOOD STORES**

2218 Hanselman Avenue  
Saskatoon, SK  
Canada S7L 6A4

Telephone: (306) 653-4481  
Facsimile: (306) 653-4688  
E-mail: sangsters@sangsters.com  
Website: www.sangsters.com

Roy Sangster  
President

### **NATURE OF BUSINESS**

As Canada's #1 health and vitamin store, Sangster's Health Centres occupies a unique position both in Saskatchewan and Canada. Sangster's has been in business since 1971 and franchising since 1978. Aside from success in the retail sector, Sangster's has developed its own line of nearly 300 top quality private label vitamins, minerals, herbs, and sports nutrition products which are marketed exclusively through Sangster's stores. Expansion in the 1990s has more than doubled the number of stores bearing the trusted Sangster's Health Centre logo. From a solid base in Saskatchewan, Sangster's has become a national brand name with stores from Halifax, NS in the east, to Nanaimo, BC in the west.

### **MAJOR ACHIEVEMENTS**

- Planning to open their 50th retail store this year, Sangster's was named one of the fastest growing companies in Saskatchewan

- Sangster's is featured in Canadian Natural Health Retailer and Canadian Business Franchise magazines
- Sangster's was a finalist for the SABEX Customer Service award
- Developed unique herbal & vitamin formulas

### **COMPANY PROFILE**

Sales Volume: \$1 - \$10 Million

R&D Expenditure: > \$200,000

Employees: Head Office: 13  
Retail Stores: 140

Facilities: Retail outlets 600-1000 sq. ft.  
Wholesale outlets 6,500 sq. ft.

Ownership: Private

Trade: Export ready, but not yet exporting

Key Alliances:

- Canadian Franchise Association
- Canadian Health Food Association
- Saskatchewan Nutraceutical Association
- Retail Council of Canada

### **COMPANY BACKGROUND**

In business since 1971, Sangster's Health Centres are franchised retail outlets that are operated by experienced Nutrition Consultants.

Sangster's Health Centres has a line of over 300 private label products that include:

- Vitamins
- Minerals
- Herbs
- Herbal Combinations
- Weight Management
- Sports Nutrition
- Natural Organic Foods

Sangster's also supply a large variety of other natural supplements and body care products to our customers.

Backed by more than 30 years in business, Sangster's Health Centre products are manufactured by State of the Art equipment where the water, air and sanitation are all part of the company's quality control.

The products are tested for quality and strength so that customers may rest assured that they are getting a Quality product. Sangster's vitamins, minerals and herbs are manufactured in Good Manufacturing Practices (G.M.P.) Facilities that are Government approved.

### **CURRENT ACTIVITIES**

Sangster's is active in research and development with the aim of expanding the private label line to include, for example, new sports nutrition products and anti-impotency herbs. The company is currently producing the information-driven "Natural Living" magazine for Sangster's customers. Sangster's is now accepting bids for international Master Franchises. The company has recently introduced a dynamic new store layout with a modern colour scheme and custom-designed cabinets and fixtures.

### **DESIRED INVESTMENT PARTNERSHIPS**

Sangster's Health Centres are committed to the growth and expansion of the franchise division. The company believes that to achieve this they must be dedicated to the franchisee in their policies and service. This will enable each and every franchisee to develop it's own potential, thereby allowing both parties to achieve their goals. Master Franchises are available for many countries.

Sangsters Health Centres is looking for contract manufacturers of vitamin and herbal products.

## **SEABUCKTHORN INTERNATIONAL INC. (SII)**

4154 Ponderosa Drive  
Peachland, BC  
Canada V0H 1X5

Telephone: (250) 767-6100  
Facsimile: (250) 767-9156  
E-mail: [info@seabuckthorn.com](mailto:info@seabuckthorn.com)  
Website: <http://www.seabuckthorn.com>

Susan McLoughlin, President and CEO  
Chuck Barton, VP Sales and Marketing

### **NATURE OF BUSINESS**

The mission of Seabuckthorn International Inc. is to distribute seabuckthorn products throughout God's world. The company is committed to preserving the integrity of this vital source. SII will maintain the integrity of seabuckthorn in products brought to the marketplace by careful production from crop to processing, to consumer products, which include the many unique benefits of this botanical resource.

Seabuckthorn contains high concentrations of the primary anti-oxidants as well as other nutrients. Some medical application of seabuckthorn includes:

- Acne, dermatitis, eczema, psoriasis, rosacea
- Peptic and duodenal ulcers
- Coronary adhesions
- Mucous membranes, gastro-intestinal tract
- Burns, scalds, cuts, tissue regeneration
- Solar and cancer radiation injuries
- Many other uses as proven by scientific research and clinical tests in Russia and China

The company is currently marketing a full line of cosmeceuticals containing seabuckthorn's healing synergies. The "inside out" skincare regimen includes the anti-aging and anti-oxidant activities of seabuckthorn tea, oil capsules and flavone capsules. The companies bulk sales division markets seabuckthorn berries, juice, bulk oil, dried fruit and powder to value added strategic alliances, in the functional food, dietary supplement, nutraceutical, cosmeceutical and pharmaceutical market places.

### **MAJOR ACHIEVEMENTS**

- The Company has emerged since 1989 as the leader in seabuckthorn development in the western hemisphere
- Confirmed that the Canadian climate is ideal to the development of seabuckthorn
- 1994 to 1999, the company achieved exclusive and inclusive territory sales in North America and Western Europe, with the National Seabuckthorn office of the Peoples Republic of China
- In 1995, research confirmed Biochemical components and Economic Analysis of orchard production
- Research project in 2003/2004 to determine the nutritional profile of seabuckthorn leaves
- In 2003/2004 the company began production of its own line of cosmeceuticals based on seabuckthorn's healing synergies.

### **COMPANY PROFILE**

|                               |   |
|-------------------------------|---|
| Sales Volume:                 | \$ 0.25-0.5 M   |
| R&D Expenditure:              | \$ 1.2 M  |
| Employees:                    | 4 full time and up to 100 in prime harvest season                         |
| Facilities:                   | Production is contracted out.   |
| Ownership:                    | Private   |
| Trade:                        | Exporting   |
| Export destinations:          | USA, Taiwan, Japan, Poland, Malaysia, Australia, UK, New Zealand, Germany |
| Total exports:                | N/A   |
| Percentage of sales exported: | 60%   |

#### Key Alliances:

- Food Development Centre Manitoba
- National Seabuckthorn Office
- Peoples Republic of China – Water Resources Branch
- Agriculture Canada in British Columbia and Saskatchewan
- University of Saskatchewan – Biochemical
- PAMI – harvester
- University of Manitoba – harvester
- United Nations Development Branch
- Mountain Forum (Nepal)
- International Research and Training Center (Beijing)
- Chinese and Western Hospital (Beijing)
- Eleven major company alliances in North America, Western Europe and Australia

### **COMPANY BACKGROUND**

Principals of predecessor company CSEL first encountered Seabuckthorn on the Loess Plateau, Yellow River, in the Peoples Republic of China in 1989 and imported Cultivars at that time.

In 1992, plant growing in Saskatchewan was discovered and in the same year the Research program was inaugurated in collaboration with Agriculture & Agri-Food Canada's PFRA Branch. The Saskatchewan government, Agriculture & Agri-Food Canada and CSEL provided funding for this program.

In 1997, consumer and other company exposure to seabuckthorn were instigated. In the same year, Seabuckthorn obtained a joint venture agreement with the Peoples Republic of China for technology exchange and quality of product to industrial standards of Good Management Practices in North America.

### **CURRENT ACTIVITIES**

Seabuckthorn International Inc. continues to develop a Canadian farmer grower contact system of commercial plantation to supply the growing demand for seabuckthorn products.

The company continues in research and development into seabuckthorn's many valuable compounds and synergies in order to provide the most effective delivery system for seabuckthorn's nutritional powerhouse.

### **DESIRED INVESTMENT PARTNERSHIPS**

Seabuckthorn International Inc. is seeking alliances for the development of consumer products and the financing of current and planned research and clinical trials showing benefits to cancer, pulmonary, skin, immune system, cardiovascular and senility.



## **SEMBIOSYS GENETICS INC.**

110, 2985 – 23 Avenue NE  
Calgary, Alberta  
Canada T1Y 7L3

Telephone: (403) 250-5424  
Facsimile: (403) 250-3886  
E-mail: [bauma@sembiosys.com](mailto:bauma@sembiosys.com)  
Website: <http://www.sembiosys.com>

Andrew Baum  
President & CEO

Maurice Moloney, Ph.D.  
Chief Scientific Officer

Jeffery L. Craig  
Vice President, Business Development

Jim Williams  
Director, Finance & Administration

Harm Deckers, Ph.D.  
Manager, Intellectual Property

### **NATURE OF BUSINESS**

SemBioSys Genetics Inc. is focused on the development and commercialization of innovative, highly profitable protein pharmaceuticals ("biologics") and other protein products that leverage the production, formulation and delivery benefits of the proprietary oilbody/oleosin technology platform. SemBioSys will commercialize products through partnerships with market leaders, combining their commercialization strengths and market access with SemBioSys' intellectual property, product pipeline and product development expertise.

The IAR (Ingredients, Additives and Reagents) business unit is focused on the development of ingredients and additives for the food, animal health and topical delivery markets and reagents for the protein purification market. SemBioSys has targeted these markets because they are not subject to the regulatory constraints of pharmaceuticals and products can be brought to market more quickly and at a lower cost.

Longer-term value is driven by SemBioSys' ability to address manufacturing, formulation and delivery challenges associated with the biologics market. SemBioSys' Stratosome™ Biologics System is the only transgenic system that addresses downstream purification as well as upstream bulk production. This allows SemBioSys to address the capital and production cost issues, both major determinants of value. The Stratosome™ Biologics System also promises formulation and alternative delivery advantages that will enable the commercialization of protein-based therapeutics that otherwise would not be economically viable.

### **MAJOR ACHIEVEMENTS**

- Received \$2.5 million (CDN) from AVAC Ltd.
- Granted U.S. Patents 6,509,453 and 5,856,452 entitled "Oil Bodies and Associated Proteins as Affinity Matrices", which broadly cover methods for the selective separation of desired target molecules from bulk process intermediates.
- Received Alberta Science and Technology Award for its pioneering efforts in plant biotechnology.
- Opened state of the art new facilities in NE Calgary, June 2001.
- Secured \$16.4 million in a Series A financing in Oct. 2000 led by Bay City Capital and Ventures West .
- Secured major equity investment from Dow AgroSciences in 1997.

- Technology platform protected by broad patents in Canada, the USA, EC and Japan.
- Expressed a variety of recombinant proteins with the oleosin system.
- First two products scheduled for launch in 2004.

### **COMPANY PROFILE**

|               |  |
|---------------|--|
| Sales Volume: | Not Available  |
| R&D           | 50 - 74.9%   |
| Expenditure:  |  |
| Employees:    | 43   |
| Facilities:   | Corporate Offices and Pilot Facility and Research Facilities in NE Calgary |
| Ownership:    | Private  |
| Trade:        | Exporting  |

Key Alliances:  
Aqua Boundy Farms  
Syngenta

### **COMPANY BACKGROUND**

SemBioSys Genetics Inc. was formed in 1994 by Dr. Maurice Moloney in collaboration with University Technologies International (UTI), a technology transfer company wholly-owned by the University of Calgary. The Company currently has 43 employees, most of whom are involved in research and product development. It has 25,000 square foot new facility that incorporates the pilot plant, research laboratories and head office.

### **CURRENT ACTIVITIES**

SemBioSys' objective is to secure a leading worldwide position in plant-based recombinant protein products. SemBioSys will accomplish this by developing and exploiting creative technologies relating to gene expression, protein partitioning, purification and delivery of proteins and other biologics.

---

SemBioSys' technology platform is based on the discovery that recombinant proteins can be targeted to or captured on oilbodies, the structures used by oilseeds to store oil. SemBioSys' technology is protected by twelve issued U.S. patents (also filed worldwide) and several pending applications.

SemBioSys is uniquely positioned compared to all other plant-based pharmaceutical companies and offers dramatic savings in COGS and reduction of capital requirements when compared to cell-culture and fermentation-based production.

SemBioSys' commercialization strategy leverages proprietary technologies to develop cost effective manufacturing, purification and delivery processes with second parties in milestone based, value shared agreements.

In addition, SemBioSys is partnering its pipeline of proprietary proteins which are uniquely enabled by SemBioSys core technologies.

---

### **DESIRED INVESTMENT PARTNERSHIPS**

- Partnerships for development and licensing of the company's biopharmaceutical manufacturing, dermatology and delivery platforms; and
- Partnerships for development and licensing of the company's pharmaceutical, nutraceutical, animal feed and industrial proteins.

## **SISU INC.**

104A-3430 Brighton Avenue  
Burnaby, BC  
Canada V5A 3H4

Telephone: (604) 420-6610  
Facsimile: (604) 420-4892  
Toll Free: (800) 663-4163  
E-mail: [webmaster@sisu.com](mailto:webmaster@sisu.com)  
Website: <http://www.sisu.com>

Brian D. Edgar  
President

### **NATURE OF BUSINESS**

SISU manufactures and distributes hundreds of formulations including natural source vitamins, minerals, botanicals, enzymes, sports nutrition and homeopathics. These products contain quality natural ingredients and are free from artificial colourings, flavours and preservatives. SISU products are manufactured under strict Canadian Good Manufacturing Practices (GMP) and are recognized world wide for their superior quality and efficacy.

### **MAJOR ACHIEVEMENTS**

- SISU celebrated its 24<sup>th</sup> Anniversary in May 2004
- SISU was named supplier of the year by the Canadian Health Food Association West (1999 and 2000)
- SISU products are manufactured under strict Canadian Good Manufacturing Practices (GMP) and are recognized world wide for their superior quality and efficacy.

### **COMPANY PROFILE**

|                               |  |
|-------------------------------|--|
| Sales Volume:                 | \$10 - 50 million  |
| R&D Expenditure:              | \$10 - 50 million  |
| Employees:                    | 100  |
| Facilities:                   | N/A  |
| Ownership:                    | Private  |
| Trade:                        | <input checked="" type="checkbox"/> Trading<br><input checked="" type="checkbox"/> Exporting |
| Export destinations:          |  |
| Total exports:                | <input checked="" type="checkbox"/> \$500,001 - \$ 1 Million                                 |
| Percentage of sales exported: | <input checked="" type="checkbox"/> 2.5 - 4.9 %  |

### **COMPANY BACKGROUND**

For almost 25 years, SISU has developed and manufactured innovative vitamins and natural health supplement products reflecting the latest advances in health and wellness.

SISU was developed as an arm of Vancouver B.C.'s premier holistic pharmacy, Finlandia. Both were founded by pharmacist Harlan Lahti, renowned in the natural health community as an expert in nutritional and botanical medicine. SISU began by specializing in hypoallergenic supplements. Harlan had suffered from allergies for many years, and was disappointed with the conventional treatments and remedies available. His own formulas were quickly recognized as both innovative and therapeutic.

Before long, the SISU product line expanded to include other, highly specialized formulations. Within a short period, the company outgrew its space within the pharmacy.

In 1988, SISU moved to a larger facility. The business continued to grow, and in 1995, moved into its present location in Burnaby, British Columbia. The new location accommodates its corporate headquarters with its research, development, manufacturing and distribution facilities, and will allow for future expansion.

### **CURRENT ACTIVITIES**

Today, SISU distributes over 150 formulations which are guaranteed to comply with Canadian Good Manufacturing Practices - quality control standards that are among the highest in the world.

SISU currently services health food, natural pharmacy, natural grocery and professional accounts across Canada, with limited export sales to Europe, the United States, Asia and the Middle East.

### **DESIRED INVESTMENT PARTNERSHIPS**

Starting in Q4 2004 we intent to rapidly increase export sales. We will seek strong local partners in every export country capable of marketing our products manufactured in Canada under the SISU brand. We will offer preferred pricing and a long term brand license to our export partner.

## **SWISS HERBAL REMEDIES LTD.**

35 Leek Crescent  
Richmond Hill, Ontario  
L4B 4C2

Telephone: (905) 886-9500  
Facsimile: (905) 886-5434  
E-mail: none  
Website: <http://www.swissherbal.ca>

Mr. Jim Maranda  
President

### **NATURE OF BUSINESS**

Swiss Herbal Remedies formulates, markets and distributes natural source vitamins, mineral, herbal supplements and cosmetics. The company also does private labelling of vitamins and herbal supplements.

### **MAJOR ACHIEVEMENTS**

- Widest range of nutritional and herbal supplements in Canada
- Over 550 products on the market
- Developed website that offers comprehensive product and health information
- Established National Sales Force
- Brand Names *Swiss Natural Sources*, *Phytolipids* and *Thera-Pro Packaging* are registered trademarks of Swiss Herbal Remedies Ltd.

### **COMPANY PROFILE**

|                               |  |
|-------------------------------|--|
| Sales Volume:                 | \$ > 40 M  |
| R&D Expenditure:              | \$ 1 M   |
| Employees:                    | 142 (4 in R&D)   |
| Facilities:                   | 36, 000 sq.ft. head office in Richmond Hill<br>Warehouses in Montreal and Vancouver  |
| Ownership:                    | Private  |
| Trade:                        | X Trading<br>X Exporting   |
| Export destinations:          | Korea, Czech Republic, Slovakia, China, Saudi Arabia, Iran, Nigera, Trinidad & Tobago, USA, Greece, Cyprus, Hong Kong, Singapore |
| Total exports:                | X \$1 - \$10 Million   |
| Percentage of sales exported: | X 5 - 9.9 %  |

### **COMPANY BACKGROUND**

Swiss Herbal Remedies was founded in 1962 by Rolf Zimmerman with the vision of improving the quality of life through the advocacy of natural remedies. All their products are tested for quality, potency, purity and stability from the raw material to the finished product stage and meet or exceed GMP standards. Swiss Herbal's Quality Control department is staffed by highly qualified personnel from the fields of nutritional science and naturopathic medicine.

# ***FUNCTIONAL FOOD & NUTRACEUTICAL TECHNOLOGIES IN CANADA***

---

The company has a National Sales force, selling its products in retail health food stores, pharmacies and nutritional outlets across Canada. Swiss Herbal Remedies has the distinction of having more supplement products on the market than any other company in Canada, with over 550 products to date. Products are exported to markets worldwide. The company also holds trade and public seminars, delivering information on its products and on topics related to nutrition and health.

## **CURRENT ACTIVITIES**

Swiss Herbal produces a vast array of products and is continually bringing products onto the market.

All their vitamins and supplements do not contain preservatives, artificial colour, artificial flavour, starch, added salt or corn and are gluten-free, which makes them suitable for people with special dietary needs. Products are manufactured in various forms including tablets, caplets, liquids, powders and lozenges.

Some examples of their products are:

- *Echinacea augustifolia/purpurea*: herbs used to boost the body's immune system to prevent or fight colds and flu
- *Evening Primrose Oil*: an excellent source of Gamma Linolenic Acid (GLA); may be beneficial in treating menstrual disorders, skin disorders, multiple sclerosis, joint pain, weight loss and high blood pressure
- *Feverfew*: a traditional herbal medicine used to prevent migraine headaches
- *Glucosamine*: an effective treatment for degenerative joint diseases as it serves as the fundamental building block for glycosaminoglycans in cartilage

- *MSM*: supplementation with organic sulfur compound has been shown to alleviate pain and inflammation associated with musculoskeletal disorders, such as rheumatoid and osteoarthritis, gout and tendinitis
- *St. John's Wort (Hypericum perforatum)*: a herbal remedy that alleviates mild to moderate depression, nervous disorders, insomnia, neuritis, and anxiety

## **DESIRED INVESTMENT PARTNERSHIPS**

Swiss Herbal Remedies is interested in negotiating contract manufacturing agreements for private label nutritional and herbal products, as well as export possibilities.

**COMPANY PROFILE****TAIGA BIOACTIVES INC.**

238-111 Research Drive  
Saskatoon, SK  
Canada S7N 3R2

Telephone: (306) 651-5331  
Facsimile: (306) 651-5333  
E-mail: dhrytzak@innovationplace.com  
Website: www.taigabioactives.com

Don Hrytzak  
President

**NATURE OF BUSINESS**

Taiga BioActives Inc. is involved in nutraceutical & functional foods research, production and processing.

Over the past four years, almost \$500,000 of research has been conducted by Taiga BioActives proving the anti-herpes properties and developing intellectual properties that would be used for patenting and market entry.

**MAJOR ACHIEVEMENTS**

- The full line of Taiga products are be safe and scientifically tested for bioactivity, and do not contain artificial perfumes, colors or preservatives.

|                  |  |
|------------------|--|
| Sales Volume:    | N/A  |
| R&D Expenditure: | \$500,000  |
| Employees:       | 3  |
| Facilities:      | Taiga Laboratories is a wholly owned subsidiary of Taiga BioActives Inc. headquartered out of Saskatoon. |
| Ownership:       | Private  |

**Key Alliances:**

- Golden Acres Garden Centers (Calgary)
- POS Pilot Plant (Saskatoon)
- Praire Plant Systems (Saskatoon)
- Veterinary Infectious Disease Organization

**COMPANY BACKGROUND**

Taiga BioActives Inc. was incorporated in 1994 as Termidor Corporation Inc. to develop marketable products from various European Medicinal plants known to Mr. John Korner, the CEO and founder of the company.

**CURRENT ACTIVITIES**

Taiga BioActives Inc. is developing an anti-viral and anti-bacterial product, which will be sold into pharmaceutical and nutraceutical markets.

Taiga is currently researching, developing and marketing natural bioactive products for the pharmaceutical, neurtaceutical, and cosmetic sectors. In addition to the herpes remedy, Taiga is conducting studies on a number of exciting, new products. A root extract form the Korner plant has shown very positive results in-vitro as an anti-bacterial ointment. Clinical trials on an appetite suppressant for the pet industry are concluding, and test market on cholesterol reducing oat bran is set to begin.

The products currently offered are:

- Termidol - V: an effective treatment for Herpes Simplex Virus (HSV)
- Termidol-S : an appetite suppressant for the pet industry.
- Ultrabran: an oat bran that concentrates the B-glucan content in the bran

### **COLLABORATIVE ARRANGEMENTS SOUGHT**

Taiga is currently seeking new investment capital to develop its products and enter them in the market. The company is also interested in establishing partnerships with distributors and manufacturers of cold sore remedies and pet products.



## **VACCINIUM TECHNOLOGIES INC.**

P.O. Box 636, Stn. "A"  
Fredericton, NB  
Canada E3B 5A6

Telephone: (506) 444-2444  
Facsimile: (506) 444-5662  
E-mail: jargall@fundy.net  
Website:  
[http://www.bioatlantech.nb.ca/business\\_vaccinium.html](http://www.bioatlantech.nb.ca/business_vaccinium.html)

John Argall  
COO

### **NATURE OF BUSINESS**

Vaccinium Technologies Inc.'s (VTI) mission is to generate and consolidate proprietary technologies and expertise in the extraction, characterisation, stabilization, modification and enhancement of the flavonoid constituents of the wild blueberry and other Vaccinium fruit, for commercial application in health functional and/or other industrial uses.

The company benefits from the leadership of a progressive executive, and a Board of Directors who are experienced in research, development and commercialization of new technologies, the health functionality of foods, and the production and processing of fruit. VTI also benefits from a network of scientific affiliations.

### **MAJOR ACHIEVEMENTS**

- Production of standardized flavonoid fractions
- Bio-transformation testing

- VTI has coupled access to fruit, with technology aimed at extracting, enhancing and stabilizing the fruit's flavonoid constituents

### **COMPANY PROFILE**

|                  |                      |
|------------------|----------------------|
| Sales Volume:    | < \$50,000           |
| R&D Expenditure: | \$ 0.1M (2001)       |
| Employees:       | 2                    |
| Facilities:      | Outsource activities |
| Ownership:       | Private              |
| Trade:           | Not Exporting        |

#### Key Alliances:

- Agriculture and Agri-Food Canada
- University of Prince Edward Island

### **COMPANY BACKGROUND**

Vaccinium Technologies Inc. is a start up company based in New Brunswick, Canada that offers access to wild blueberries and fruit derivatives, as well as technology and expertise in fruit production and processing for nutraceutical and other applications.

Wild blueberries and related fruit are a strong source of flavonoids, which are potent natural antioxidants. Building on the region's global exclusivity in wild blueberry production, VTI has coupled access to fruit, with technology aimed at extracting, enhancing and stabilizing the fruit's flavonoid constituents.

## **CURRENT ACTIVITIES**

Centred primarily on research in the health functionality of wild blueberry and other Vaccinium fruit, the research and development in progress includes:

- Research aimed at extracting, enhancing, characterising and stabilizing the healthful components of wild blueberries and related fruit
- Research collaborations with Agriculture and Agri-Food Canada, regional universities and international research organizations
- Alliances with several international research organizations in the elaboration of the health functionality of wild blueberries and related fruit

## **DESIRED INVESTMENT PARTNERSHIP**

VTI offers consolidated expertise in flavonoid technologies, and seeks collaborations in food, beverage and nutraceutical applications of these flavonoids.

Project partnerships are open to any group whose primary interest is in gaining value from fruit-based flavonoids. Partnership growth is encouraged.

## **VITA HEALTH PRODUCTS**

150 Beghin Avenue  
Winnipeg, Manitoba  
Canada R2J 3W2

Telephone: (204) 661-8386

Facsimile: (204) 663-8386

E-mail: [esmith@leiner.com](mailto:esmith@leiner.com)

Website: <http://www.vitahealth.ca>

Mr. Eric Smith  
President

### **NATURE OF BUSINESS**

Vita Health is Canada's largest manufacturer of private label vitamins, minerals, herbal products, dietary supplements and OTC's. The company manufactures and packages private label supplements and pharmaceuticals for its national retailer customers and contract manufacturers for non-retail and pharmaceutical companies.

In addition, Vita Health markets two consumer brands: Elite (Natural Health Products) and Stanley Brand (OTC's). Vita Health Products maintains an in-house quality control laboratory to meet and exceed regulatory standards as well as Good Manufacturing Practices (GMP) under the World Health Organization (WHO).

### **MAJOR ACHIEVEMENTS**

- Over 60 years experience in health products and pharmaceuticals (Founded in 1936)
- Established a manufacturing division in 1974
- More than doubled manufacturing and warehousing facilities over the last 12 months
- 

- Introduced leading-edge standardized herbal caplets to the Canadian market in 1996
- Merged with Leiner Health Products of Carson, California in 1997 (Leiner is the world's largest manufacturer of vitamin, nutritional and herbal supplements)
- Purchased Stanley Pharmaceuticals of Vancouver, BC in December 1999.

### **COMPANY PROFILE**

Sales Volume: \$ > 130 M

R&D Expenditure: \$ > 0.8 M

Employees: 460

Facilities: - 185,000 sq.ft. cGMP manufacturing plant & 35,000 sq ft distribution center in Winnipeg

Ownership: Leiner Health Products Inc.

Trade: Not Exporting

Key Alliances:

- Leiner Health Products Inc. (Carson California)
- Apotex Inc. (Toronto, ON)

### **COMPANY BACKGROUND**

From a single retail health food store founded by G.W. Seier in 1936, the company has become Canada's largest manufacturer of private label OTC and Natural Health Products.

**CURRENT ACTIVITIES**

Vita Health has established an aggressive focus on new product development, driven by collaboration of the company's marketing, R&D departments and external partners.

**DESIRED INVESTMENT PARTNERHSIPS**

Joint product development with value-added, research-based raw material suppliers.

# Research Centres

**Alphabetical listing of research centres and academic institutions**

## RESEARCH CENTRES

Canada has a variety of institutions that conduct research in the field of functional foods and nutraceuticals including government, university, and independent research organizations. Frequently, research institutions and industry collaborate on projects. Research and industry partners assist each other in conducting joint research and development and in pursuing commercialization. Research Centres are also used by their members as a source of information about the industry.

At the federal government level, Agriculture and Agri-Food Canada (AAFC) is the department primarily engaged in research related to food and food production. AAFC has research centres across Canada whose research programs are specific to the geographic regions in which they are located. Research centres undertake projects in the areas of agricultural biotechnology; dairy and meat science and technology; fish, animals, plants and other organisms; food preservation technology; and the breeding and cultivation of crops, herbs and others plants.

Overall, Research Centres in Canada have a wide variety of expertise including: the isolation and characterization of value-added components; Fractionation and processing of bio-oils; Consultation; Development of novel processes for the extraction, Isolation and purification of health products; Packaging, preservation and electrotechnologies; Bio-ingredients research including flavours and colorants; Enhancement of food antioxidant capacity; Development and pilot scale production of high value pharmaceutical proteins; Bio-activity assays and analytical chemistry; Enzymology, genetic engineering and nutrition; and Biomedical applications.

Canada's universities are valuable sources of basic research in the nutritional sciences. Research scientists, post-graduate and graduate level researchers, and technical support staff are involved in variety of research projects directly related to nutraceuticals and functional foods. In addition, researchers study the biology, biochemistry and physiology of innumerable plants, herbs and other natural materials.

Selected Research Centres include:

- Agriculture and Agri-Food Canada Research Centres
  - Atlantic Food & Horticulture Research Centre
  - Eastern Cereal & Oilseed Research Centre
  - Food Research & Development Centre
  - Food Research Program
  - Greenhouse & Processing Crops Research Centre
  - Pacific Agri-Food Research Centre
  - Saskatoon Research Centre
  - Southern Crop Protection & Food Research Centre
- Ag-West Bio Inc.
- Celex Laboratories Inc.
- Centre for Aquaculture and Seafood Development
- Enviro-Test Laboratories
- Functional Foods and Nutraceuticals Research Institute
- Guelph Centre for Functional Foods
- Guelph Food Technology Centre
- Human Nutraceutical Research Unit
- McGill University
- National Centre for Agri-food Research in Medicine
- National Research Council (NRC) Institute for Marine Biosciences
- Natural Health Products Technology Cluster
- Nutraceuticals and Functional Foods Institute
- PEI Food Technology Centre
- POS Pilot Plant Corporation
- Richardson Centre for Functional Foods & Nutraceuticals

- University of Alberta
- University of Moncton
- University of Toronto

## ***AGRICULTURE AND AGRI-FOOD CANADA, RESEARCH BRANCH***

Agriculture and Agri-Food Canada  
Research Branch  
930 Carling Avenue  
Sir John Carling Building  
Ottawa, ON Canada K1A 0C5

Telephone: (613) 759-6378  
Facsimile: (613) 759-7769  
E-mail: [nazarowecm@em.agr.ca](mailto:nazarowecm@em.agr.ca)  
Website: <http://res2.agr.ca/>  
Dr. Maria Nazarowec-White, A/Research  
Coordinator, Food

### **NATURE OF ORGANIZATION**

Agriculture and Agri-Food Canada (“AAFC”) is finding new ways to add value to agricultural output. The mission of the Research Branch of AAFC is “innovating for a sustainable future by working with industry to develop and produce competitive products and processes in an environmentally sustainable manner”. As a national research network, the Research Branch focuses on the variously interconnected needs of the Canadian agri-food industry. Its multidisciplinary research team develops novel products and processes to help industry tap new markets.

### **COLLABORATIVE ARRANGEMENTS SOUGHT**

The research centres are currently looking for investment partners and companies interested in collaborating on all aspects of research. The research centres participate in the Matching Investment Initiative. This initiative allows the department to match, one-for-one, private sector investment in collaborative research. This also allows the centres to set the research priorities with market demands in mind.



## ***Atlantic Food & Horticulture Research Centre (AFHRC) Kentville, Nova Scotia***

Contact: Dr. Wilhelmina Kalt, Research Scientist

Telephone: (905) 679-5757, Facsimile: (902) 679-2311

Website: <http://res.agr.ca/kentville>

The Centre has 85 full-time employees, including 25 scientists. The Food Research group at the Centre (16 employees including 6 Ph.D.'s) is well staffed and equipped in the areas of sensory analysis, microbiology, food technology, food chemistry, post-harvest storage, and electron microscopy. Its facilities include a fully equipped 6500 m<sup>2</sup> Food Processing Pilot Plant.

### **Major Achievements:**

- Establishment of a multi-site program on health functional flavonoids from blueberries, other *Vaccinium* species and other fruit crops.
- Development of a health functional blueberry juice product
- Health Functional Phytochemical of Fruit (2001) Horticultural Reviews

### **Current Activities:**

- Cardioprotective effects of fruit phenolics
- Characterization of bioactivities of specific polyphenol classes
- Development of technologies to enhance health functional quality of horticultural crops
- Identification of new sources of products for the nutraceutical/functional food sector

- Genetic selection for optimal phytonutrient quality
- Elucidation of mechanisms responsible for urinary tract protective effects of *Vaccinium* sp.
- Determining the bioavailability of fruit flavonoids in pigs

### **Key Alliances:**

- Rutgers University
- USDA-ARS at Tufts University
- University of Illinois
- Acadia University
- Université de Moncton
- Atlantic Veterinary College

## **Cereal Research Centre (CRC) Winnipeg, Manitoba**

Contact: Dr. Jim Bole, Director  
Telephone: (204) 983-0099,  
Facsimile: (204) 983-4604  
Website: <http://www.agr.gc.ca/science/winnipeg>

The Cereal Research Centre (CRC) Winnipeg, focuses on wheat and oat breeding, and improving disease resistance and quality of all cereals. The centre's research projects cover all aspects of varietal development from the initial stages of identifying genes which control traits of interest – to the final registration of a new variety. Our goals are to supply producers with high-yielding varieties adapted to prairie growing conditions, and to provide processors with high quality raw materials. Our multi-disciplinary teams work with industry, other government organizations and universities, to develop and produce competitive products and processes in an environmentally sustainable way.

The CRC's quality evaluation team comprises four cereal chemists involved in the study of cereal grain composition and functionality. They assess the protein, starch and theological characteristics of cereals, along with physical factors that affect baking, pasta and noodle making, and oat quality, in an effort to identify novel traits and ultimately improve end product quality. The quality team is supported by a staff of about 50 technicians, seasonal employees, graduate students and visiting scientists.

### **Major Achievements:**

- Classified endosperm proteins from over 400 wheat cultivars using polyacrylamide gel electrophoresis.
- Direct access to diverse germplasm has facilitated the identification, extraction and evaluation of novel components and nutritional properties of wheat, oats and barley, including protein fractions, fibre, antioxidants and flavenoids.
- Explored new ways to utilize cereal grains, including a novel food use for barley tortillas or "wraps" made from 100% barley flour, and barley snack chips.
- Evaluated the bread- and noodle-making quality of new lines of hard white spring wheat, a new class of wheat for Canada.
- Developed a small-scale oat flaking machine and associated method used to evaluate oat lines for end product quality.
- In the year 2001, conducted quality tests on 26,000 wheat lines, 6000 oat lines and 2600 barley lines to identify wheat germ plasm with superior milling, theological, baking, pasta and noodle making quality; oat germplasm with superior processing, milling and nutritional quality; and barley with superior malting and feed quality.

### **Current Activities:**

- Developing screening criteria to identify barley cultivars with superior technical quality (e.g. starch characteristics; surface appearance, color and texture of end product) and nutritional functionality (beta-glucans, dietary fibre, tocopherol, phenolic compounds).
- Identifying genotype variation of quality components of barley which offer potential as nutraceuticals and functional foods.
- Using NIR Technology to predict fibre, oil and protein components of oat to allow for rapid screening of germplasm for nutritional enhancement.
- Evaluation and utilization of wheat gluten with genetically altered protein composition.
- Utilization of extra strong gluten wheat types in frozen dough, pasta and puffed wheat products.

- Evaluation of environmental influences on composition and end product quality of wheat, barley and oat grown in different environments.
- Lab fractionation and extraction of cereal proteins, starches and other constituents to identify and isolate specific components or potential products that may be derived from the grain.
- Identifying oat sources for ultra-high beta-glucan/high viscosity types and their application as functional foods.
- Application of hard white spring wheat into novel food products
- Assessment of organic wheat quality
- Effects of grain storage on wheat quality
- Development of small-scale testing protocols for determining wheat quality

### Key Alliances:

- University of Manitoba
- Canadian Grain Commission
- Canadian International Grains Institute
- Texas A&M University
- Australia Agriculture
- Crop Development Centre
- USDA
- Other AAFC research Centres and private companies

## **Eastern Cereal & Oilseed Research Centre (ECORC)**

### **Ottawa, Ontario**

Contact: Dr. Lianne Dwyer, A/Director

Telephone: (613) 759-1952, Facsimile: (613) 759-1970

Website: <http://res.agr.ca/ecorc>

The functional food and nutraceutical research at the Centre is focused on the isolation and characterization of value-added components of cereal crops. Located on the 500 ha Central Experimental Farm, the Centre has over 300 full-time staff, including 78 research professionals. Research activities are carried out by more than 30 study teams organized into 6 sections: Crops; Molecular Genetics; Land and Agronomy; Systematic Mycology/Botany, Systematic Entomology, and Biodiversity. Key resources include transmission and environmental scanning electron microscopes, a light microscope and imaging system, a microspectrophotometer, as well as high field Nuclear Magnetic Resonance and Mass Spectroscopy.

### **Major Achievements:**

Canadian Patents issued; "Recovery of Plant Extractives", and others

1. Canadian Collection of Living Fungal Cultures (11,000) isolates
2. Published books, "Canadian Medicinal Crops". "Culinary Herbs, and "Vegetables of Canada" by E. Small

### **Current Activities:**

- Isolation and characterization of value-added components of cereal crops for antibacterials, antihistamines, steroids, antioxidants, anti-cancer agents, food and feed ingredients

- Analysis of crop quality and processing potential, flour and/or seed composition
- Identification of Canadian microbial genetic resources
- Reviews and comprehensive databases of native medicinal crops for commercial development
- Industrial collaboration to identify and authenticate, by DNA fingerprinting, high yielding genotypes of echinacea with high phytochemical potency
- Crop germplasm databases and reference guides – covering all vegetables, edible herb and spice plants that can be cultivated in Canada
- Development of identification aids and information systems from fungi, plants, and insects

### **Key Alliances:**

- University of Ottawa
- University of Guelph
- Carleton University
- Numerous private companies and producer associations

## **Food Research & Development Centre (FRDC)**

### **Saint-Hyacinthe, Quebec**

Contact: Dr. Edward Farnworth, Research Scientist

Telephone: (450) 773-1105, Facsimile: (450) 773-8461

Website: <http://res.agr.ca/sthya>

The aim of FRDC's strategic research program is to increase the knowledge of food systems through four research divisions: bio-ingredients, dairy industry, meat industry, and processed plant products. The Centre has 144 employees including more than 30 scientists with expertise in microbiology, biochemistry, food science, enzymology, genetic engineering and nutrition. A team of 6 researchers is working in the functional food area. Its fully equipped 3260 m<sup>2</sup> pilot plant provides, through the industrial program, a confidential location for industry R&D needs. It also has specific analytical capabilities, such as equipment for measuring the permeability of packaging materials, heat penetration analysis, sensory evaluation and small pilot scale irradiation.

### **Major Achievements:**

- FRDC's Industrial program has been certified ISO 9002 since March, 1996
- Its library contains extensive materials and international access to databanks on food industry literature. It offers numerous data retrieval and information gathering and analysis services to its industrial clients
- In September 1997, opened its Food Industry Pavillion dedicated to providing information and training to the industry

### **Current Activities:**

- Identification of probiotic bacteria
- Incorporation and protection of probiotic molecules
- Incorporation of bioactive ingredients into foods and beverages
- Preservation of nutraceuticals bioactivity by encapsulation and molecular transport
- Impact of food processes on bioactivity of functional foods and nutraceuticals
- In vitro and in vitro tests for probiotics

### **Key Alliances:**

- Quebec Ministry of Agriculture, Fisheries and Food
- Laval University
- McGill University
- University of Montreal
- St. Hyacinthe Agri-Food Technology Park
- A number of national and international alliances.

## Food Research Program (FRP)

93 Stone Road, West  
Guelph, ON  
Canada N1G 5C9  
Telephone: (519) 829-2400  
Facsimile: (519) 829-2600  
Email: n/a  
Website: <http://res2.agr.ca/guelph>

Dr. M. Humayoun Akhtar  
Senior Research Scientist

Dr. Peter Wood  
Senior Research Scientist

Dr. Punidadas Piyasena  
A/Director

Develops and ensures safe and health promoting foods which reduce health care costs and provide new added value commercial opportunities

### Major Achievements:

Development of analytical techniques for the detection and quantification of major isoflavones in soy beans and processed foods Isolation of high purity lycopene from tomato skins Analytical methods for separation of active isomers of conjugated linoleic acid (CLA).

Studies of physiological effects of CLA: Clinical demonstration of cholesterol lowering, and blood glucose and insulin lowering, by oat beta-glucan. Data used to establish health claim for oats in the US methods for rapid physicochemical characterisation and microscopic identification of cereal beta-glucan. Evaluation of physicochemical and physiological properties of dietary fiber fractions from wheat bran

### Current Activities:

- \$ Investigation of effects of processing and extraction methods on isoflavones, and antioxidants (plant polyphenols) in food commodities grown in Southern Ontario.
- \$ Evaluation of isoflavones, antioxidants such as lycopene, lutein, polyphenols, and CLA for efficacy of health promotion and disease risk reduction.
- \$ Use of supercritical fluid and microwave extraction techniques for production of value-added health-promoting food ingredients
- \$ Determination of relationships between structure, molecular weight distribution and other physicochemical characteristics of dietary fibre polysaccharides and their performance in clinical, animal and in vitro evaluations of efficacy
- \$ Evaluating properties and potential health benefits of ancient wheats.
- \$ Development of functional grain products: high-lutein wheat and corn products, anthocyanin-rich cereal products, and high oxidation cereal products; fractionation of small cereal grains (wheat, barley, oat).
- \$ Expanding the consumer base for the health promoting properties of soybeans, flaxseed, through development of new food applications.

### Key Alliances:

- \$ University of Manitoba
- \$ University of Ottawa
- \$ University of Guelph
- \$ Health Canada
- \$ Other AAFC Research Centres and private companies
- \$ Ottawa Health Research Institute
- \$ Canadian Grain Commission
- \$ Canadian International Grains Institute
- \$ Texas A&M University
- \$ Australia Agriculture
- \$ Crop Development Centre
- \$ USDA

### *Organizational Background:*

The Food Research Program is a centre for food research in the Research Branch of Agriculture and Agri-Food Canada. Currently, there are more than 50 full-time staff, including 22 research scientists. The Centre's research addresses various aspects of Food Safety, Quality, Processing, and Functional Foods and nutraceuticals. The Centre's goal is to develop and ensure safe and health promoting foods which reduce health care costs and provide new added value commercial opportunities. Investigations into relationships between dietary components and human health and risk of disease focus on extraction, analysis, physiochemical characterization.

## **Greenhouse & Processing Crops Research Centre (GPCRC)**

### **Harrow, Ontario**

Contact: Dr. Gary Whitfield, Director

Telephone: (519) 738-2251, Facsimile: (519) 738-2929

Website: <http://res.agr.ca/harrow>

The office/laboratory complex (7,500 m<sup>2</sup>), supports a staff of 105 persons, including 2 scientists and support staff in functional food research. The Centre develops and transfers new technologies for production of greenhouse vegetables (tomatoes, cucumbers and peppers), field-grown processing vegetables, soybeans and white beans. In this work, through collaborations with the AAFC food research group in Guelph, the Centre expects to examine the quality aspects of food and new value-added products including nutraceuticals.

### **Major Achievements:**

- Has one of the largest greenhouse research complexes in Canada (6,973 m<sup>2</sup>)
- Plant breeders have worked with industry to develop several new soyfood soybean cultivars, which have been successful in export markets of the Pacific Rim
- The information centre has a collection of 5,000 volumes and 110 scientific journals, as well as access to international resources

### **Current Activities:**

- Studying the fructooligosaccharides and fructans in chicory and indigenous plants

- Research on the protein profile of soybeans as it affects the quality of soymilk and tofu
- Determining the effect of soy pectins and other carbohydrates on miso production
- Establishing a standard method to assess the quality of soybeans for making tofu
- Developing enhanced germplasm for processing field tomatoes, improved disease resistance, and improved physical/chemical characteristics

### **Key Alliances:**

- University of Western Ontario
- Ontario Soybean Growers Marketing Board
- Canadian Soybean Exporters Association
- Japan Federation of Miso Manufacturers Cooperatives
- University of Guelph



## **Pacific Agri-Food Research Centre (PARC)**

### **Summerland, British Columbia**

Contact: Dr. G. (Joe) Mazza, Senior Research Scientist

Telephone: (250) 494-6376, Facsimile: (250) 494-6415, email: mazzag@agr.gc.ca

Website: [http://res2.agr.ca/parc-crapac/summerland/progs/food/mazza\\_e.htm](http://res2.agr.ca/parc-crapac/summerland/progs/food/mazza_e.htm)

The Centre has 114 full-time employees, including 34 scientists and 45 technicians. Research conducted at PARC addresses four national science programs: environmental health, sustainable production systems, bioproducts and bioprocesses and food safety and quality.

At the present time, 2 research scientists, 4 technicians, 1 post-doc, and several graduate students are working in the area of functional foods and nutraceuticals research. Its facilities include: an 800 m<sup>2</sup> pilot plant, three 200 m<sup>2</sup> labs-food chemistry, food physics and food microbiology, and a 100 m<sup>2</sup> sensory evaluation lab.

### **Major Achievements:**

- Developed patented technology for the production of functional, water-soluble protein-fibre products from grains U.S. Patent 6,261,629
- Developed technology for the extraction of hydrocolloidal gum from flaxseed
- Developed advanced methodology for the analysis of biologically active components of fruits, vegetables, oilseeds and other crops including, ginseng and echinacea
- World-class laboratory and research team on anthocyanin pigment and other flavonoids

- Identified, extracted and evaluated novel antimicrobial compounds from plant products, especially herbs and spices
- Published books, "Anthocyanins in Fruits, Vegetables and Grains" by G. Mazza and E. Miniati, "Functional Foods: Biochemical and Processing Aspects", G. Mazza, editor; and "Herbs, Botanicals and Teas", G. Mazza and B.D. Oomah, editors
- Recent scientific publications: Methods of analysis for anthocyanins in plants and biological fluids. Journal of AOAC International, 87:129-145.
- Anthocyanin metabolites in human urine and serum. British Journal of Nutrition, 91, 933-942

### **Current Activities:**

- Investigation into the antioxidative and anti-inflammatory activities of flavonoids and anthocyanins in plant foods, and investigation of metabolism of anthocyanins in humans
- Characterization of metal-binding proteins in flaxseed
- Determination of inhibitory effects of anthocyanins and other phenolic compounds on nitric oxide production in cell lines
- Development of predictive models for astringency red wines
- Isolation, characterization and assessment of secondary metabolites from plants for use in human health
- Development of novel processes for the extraction, isolation and purification of health products

### **Key Alliances:**

- Natural Sciences and Engineering Research Council
- University of British Columbia
- University of Manitoba
- University of Guelph
- Several private companies

## Saskatoon Research Centre (SRC)

107 Science Place  
Saskatoon, SK S7N 0X2

Telephone: 306-956-7266

Facsimile: 306-956-7247

E-mail: [westcott@agr.gc.ca](mailto:westcott@agr.gc.ca)

Website :

[http://res2.agr.ca/saskatoon/index\\_e.htm](http://res2.agr.ca/saskatoon/index_e.htm)

Contact:

Dr. Neil D. Westcott  
Study Leader

The Value-Added Processing Research Program at the Saskatoon Research Centre is conducted by the Bioproducts and Processing team. It was established to investigate alternative commercial applications for crops that can adapted to the Prairies. The Program develops prototype processes to the proof-of-concept stage, with the goal of licensing these technologies to the private sector for commercialization. The Bioproducts and Processing team has over 1000m<sup>2</sup> of fully equipped, state-of-the-art facilities for high volume work and a current complement of 20 research and technical staff. Located on the campus of the University of Saskatchewan, it is close to POS Pilot Plant and Innovation Place Research Park.

### Nature of Business:

Develops processes to produce value-added products and investigates alternative commercial applications for crops.

### Major Achievements:

- Developed patented oat fractionation technologies for the preparation of oat components for use as cosmetic and functional food ingredients
- Licensed patented technologies to isolate and purify the major plant lignan from flax seed that has potential use in prevention of some cancers, heart disease, diabetes and lupus nephritis.
- Licensed patented technologies for the preparation of conjugated linoleic acid (CLA) from vegetable oil with potential use in obesity control, diabetes, heart disease and immune function.
- Developed efficient methods of producing health products and bio-diesel from Canadian vegetable oilseeds.
- Patented technology for the production of saponins from quinoa.

### Company Profile:

|                               |  |
|-------------------------------|--|
| Sales Volume:                 | \$1-150 000  |
| Employees:                    | 20   |
| Facilities:                   | Has over 1000 m <sup>2</sup> of fully equipped, state-of-the-art facilities. |
| Trade:                        | N/A  |
| Total Exports:                | N/A  |
| Percentage of Sales Exported: | 0%   |

### Key Alliances:

- POS Pilot Plant Corporation
- University of Saskatchewan
  - College of Medicine
  - College of Pharmacy and Nutrition
  - College of Agriculture
- Saskatchewan Research Council
- Innovation Place Bioprocessing Centre
- University of Western Ontario
  - London Health Sciences Centre
  - Robarts Research Institute

- Bioriginal Food and Science Corp.
- Northern Quinoa Corp.
- Archer Daniels Midland

### Current Activities:

- Comprehensive investigations into value-added opportunities in the chemistry of flavonoids, sterols, terpenes, phenolics, polypeptides and alkaloids
- Processing of bio-oils for use as bio-fuels and health products.
- Isolation, fractionation, modification, and functional characterization of proteins, carbohydrates (starches and gums) and fibres.
- With medical collaborators, research on the treatment of atherosclerosis hypercholesterolemic, endotoxic shock, diabetes.

### Desired Investment

#### Partnerships:

Investment partners interested in research collaborations.

## **Southern Crop Protection & Food Research Centre (SCPFRC)**

### **London, Ontario**

Contact: Dr. Jim Brandle, Research Scientist  
Telephone: (519) 457-1470, Facsimile: (519)  
457-997

Website: <http://res.agr.ca/lond/pmrc>

Scientists at SCPFRC have extensive experience in the development of probiotics and functional foods with active ginseng and stevia research programs. The main objectives of these programs are to improve production practices and to develop germplasm for these crops. Work is carried out at the main centre, a 25 ha site located in London; a 60 ha research farm near London.

### **Major Achievements:**

- Developed liquid chromatography methods for determining ginsenosides in ginseng and sweet glycosides in stevia
- Developed cultivars, a production system, a molecular map, and isolated key biosynthetic genes from stevia
- Two of the SCPFRC's laboratory facilities were upgraded at a total cost of more than \$12M
- An internationally recognized and focussed team of ginseng researchers
- North America's largest ginseng research program

### **Current Activities:**

- Development and pilot scale production of high value pharmaceutical proteins, such as immune modulators and vaccines, in transgenic plants in collaboration with industry members of the medical research community
- Production, protection, and breeding of medicinal plants such as ginseng, evening primrose, feverfew, and stevia
- $\beta$  glucan studies

### **Key Alliances:**

- London Health Sciences Centre
- Nixa Biotechnologies
- Ontario Veterinary College
- University of Guelph

## **AG-WEST BIO INC.**

101-111 Research Drive  
Saskatoon, SK  
Canada S7N 3R2

Telephone: (306) 975-1939  
Facsimile: (306) 975-1966  
E-mail: [carolann.patterson@agwest.sk.ca](mailto:carolann.patterson@agwest.sk.ca)  
Website: [www.agwest.sk.ca](http://www.agwest.sk.ca)

Dr. Carol Ann Patterson  
Vice President, Health and Nutrition

### **NATURE OF ORGANIZATION**

***The mandate of the Health and Nutrition Division of Ag-West Bio Inc. is to:***

- Assist the development of infrastructure required by AWB members to support their growth and development
- Support the coordination and development of research and analytical facilities required by AWB member companies to meet various federal and international regulations and to support the development of markets
- Support the production of crops conducive to the manufacture of nutraceutical, functional food and dermatological products
- Increase public awareness of nutraceutical and functional food products and their health benefits, and of the products and services of AWB members in local, national and international markets
- Support the development of a policy and regulatory environment conducive to the growth and development of AWB member organizations
- Promote opportunities for investment in AWB member organizations

***AWB coordinates three Health and Nutrition programs:***

#### 1. Market Promotion & Public Awareness Program

The objectives of the AWB's Market Promotion & Public Awareness are focused upon AWB member nutraceutical, functional food and dermatological companies and include:

- Supporting the development and expansion of market and trade activities through promotion in national and international markets
- Increasing consumer awareness of the health benefits of AWB member products
- Increasing the awareness among venture capital, manufacturing and processing companies of the opportunities to invest in the industry

#### 2. Regulatory Program

The objective of this program is to support the development of a policy and regulatory environment conducive to the growth and development of the AWB members.

#### 3. Research & Development Program

The objective of the AWB's Research & Development Program is to encourage the dissemination of on-going research activities and results among scientists and industry players involved in nutraceutical, functional foods and dermatologicals.

### **MAJOR ACHIEVEMENTS**

- Was the first fully funded and operational Network in Canada
- Has taken a leadership role in the representation of the industry in Canada

- Has secured a membership that represents all sectors involved in the industry including companies; trade associations and service organizations; research facilities and government organizations. Members are based in Saskatchewan, BC, Alberta, Manitoba, Ontario, the Maritimes, the U.S., Europe

### **ORGANIZATION PROFILE**

Key Alliances:

- Alberta Research Council Inc
- Agriculture and Agri-Food Canada
- Bio Processing Centre
- Canadian Institute of Food, Science and Technology
- National Research Council of Canada/Plant Biotechnology Institute
- Manitoba Food Development Centre
- Nutraceutical Alliance
- POS Pilot Plant Corporation
- University of Saskatchewan
- Canola Council of Canada
- Flax Council of Canada
- Saskatchewan Agriculture and Food
- Saskatchewan Canola Development Commission
- Saskatchewan Elk Breeders Association
- Saskatchewan Economic Cooperative Development
- Saskatchewan Flax Development Commission
- Saskatchewan Herb and Spice Association
- Saskatchewan Regional Economic Development Authority
- Saskatchewan Trade and Export Partnership
- St. Boniface Research Centre
- University of British Columbia

- Information services
- Quarterly newsletter
- Domestic and international contacts in government, regulatory, production, processing, manufacturing and distribution organizations
- Facilitation of access to the Canadian research and development community
- Seminars and Conferences
- Directory of member organizations
- Extensive WEB site with numerous links
- Member assistance in strategic alliance formation and partnering
- Member assistance in accessing research and development funding
- Facilitation of access to Canadian Industry

### **DESIRED INVESTMENT**

### **PARTNERSHIPS**

Ag-West Bio welcomes new members and is seeking increased alliances with similar organizations from across Canada as well as internationally.

### **CURRENT ACTIVITIES**

## ***CELEX LABORATORIES INC.***

Address: 310-19358-96<sup>th</sup> Ave  
Surrey, British Columbia  
V4N 4C1  
Telephone: (604) 888-1235  
Facsimile: (604) 888-7322  
E-mail: celex-laboratories@shaw.ca  
Website: www.celexlaboratories.com

Contact: Steve Liao  
Title: President

### **NATURE OF ORGANIZATION**

Celex Laboratories Inc. specializes in natural herbal products and natural health products, providing:

1. Custom manufacturing services
2. Analytical services to accompany finished products
3. Creation / production / sale of Celex's own brand name products (Natural Goodness, Natural Products).

Manufacturing can produce tablets, gelatin capsules, granules or teabags.

### **MAJOR ACHIEVEMENTS**

- Developed rapid/effective method for determination of ginsenosides
- Sole Canadian possessor of a closed-vacuum extractor (200kg capacity) and spray dryer

### **ORGANIZATIONAL PROFILE**

|                                  |  |
|----------------------------------|--|
| Sales Volume:                    | ➤ \$1 - \$10 Million   |
| R&D Expenditure:                 | ➤ <\$50,000  |
| Employees:                       | 10   |
| Facilities:                      | 310-19358-96 <sup>th</sup> Ave.<br>Surrey, British Columbia<br>V4N 4C1 |
| Ownership:                       | Corporation  |
| Trade:                           | ➤ Exporting  |
| Total exports:                   | ➤ \$250,001 - \$500,000  |
| Percentage of sales<br>exported: | ➤ 10 - 24.9 %  |
| Export destinations:             | Hong Kong, Japan, South<br>Korea, Taiwan, Indonesia.                   |

### **ORGANIZATIONAL BACKGROUND**

Established in 1987, the initial purpose of Celex Laboratories Inc. was research and developmental services in the area of molecular biological fields and natural pharmaceutical products.

Today, Celex Laboratories has evolved into a company focused on the manufacturing and marketing of natural health products. Based in the Greater Vancouver area, Celex plays a significant role in both the local and global market.

### **CURRENT ACTIVITIES**

Currently specializing in the manufacturing and marketing of natural health products. Celex's facility includes access to many processing machines, some of which are the only of their kind in Canada.

**DESIRED INVESTMENT**

**PARTNERSHIPS**

Celex welcomes potential investors, distributors and exporters interested in expanding Celex products into new markets.



## ***CENTRE FOR AQUACULTURE AND SEAFOOD DEVELOPMENT***

Fisheries and Marine Institute of Memorial  
University of Newfoundland  
P.O. Box 4920  
St. John's, Newfoundland  
Canada A1C 5R3

Telephone: (709) 778-0532  
Facsimile: (709) 778-0670  
E-mail: Nigel.Allen@mi.mun.ca  
Website: <http://www.mi.mun.ca/casd/casd.htm>

Nigel Allan  
Director

### **NATURE OF ORGANIZATION**

Centre for Aquaculture and Seafood Development's (C-ASD) mission is to enhance the competitiveness of the aquaculture and seafood processing sectors, by working with industrial clients in areas of applied research, product and process development, technology transfer and advisory services, and support for education and training activities.

The C-ASD services a full range of industrial clients, from single person owner/operator start-up companies, to large, national corporations. Their assistance ranges from simple telephone inquiries on technical topics to multi-year project, process and systems development.

### **MAJOR ACHIEVEMENTS**

- Led two major conferences on fishery by-product utilization in 1998 and 1999
- Steering committee member for "Nutraceutical 2000" conference, St. John's, NF

- Member of federal/provincial committee on agrifood development
- ISO 9001 registered December 2001
- Federal fish processing registration since 1986, agrifoods registration since 1997
- Achieved research contract revenues > \$1 million for past 3 consecutive years
- Organized and hosted a conference in March 2002 entitled "Emerging Separation, Concentration and Drying Technologies for the Food, Beverage and Nutraceutical Industries"
- Canadian Foundation for Innovation Grant; co-applicant: Fishery By-Products Research Centre: Infrastructure for the identification, recovery and commercial development of marine biomolecules from fisheries and aquaculture wastes.
- Construction of a full quarantine fish health laboratory equipped for vaccine development and pathogen testing according to internationally accepted protocols
- Acquired AA, HPLC and ion chromatography units for organic and inorganic chemical analysis

### **RESEARCH GROUP PROFILE**

Personnel in the Centre are committed to working with and on behalf of industrial clients and government agencies to enhance and strengthen the aquaculture and seafood processing industries.

The aquaculture and seafood processing industries have much in common. Both are working with aquatic organisms to produce seafood for highly competitive global markets, with an ever-increasing consumer awareness of quality. The Marine Institute has over the past ten years built a high level of applied scientific and technical expertise in the areas of seafood processing and aquaculture.

These capabilities are consolidated into a single interdisciplinary, cross-sectorial team, the Centre for Aquaculture and Seafood Development (C-ASD).

The primary goals of the centre are:

- To provide a suite of technical capabilities and services for addressing industry needs in the aquaculture and seafood processing sectors
- To participate with industry in research and development efforts required for future growth and diversification
- To provide facilities and expertise in support of education and training needs of industry

Capabilities & Facilities:

The CASD is committed to working with industrial and government clients to strengthen the food industry. Its areas of specialty include:

- The development of new seafood products
- The development of QMPR and FSEP plans
- Test marketing assistance
- Producing pilot scale quantities of products
- Industrial problem solving
- Equipment development and modifications troubleshooting
- Technology transfer
- Analytical services

### **CURRENT ACTIVITIES**

The Centre is led by a Director with extensive knowledge and industry experience in aquaculture and seafood processing.

The Centre consists of a staff of approximately 25 scientists and technologists. Their academic qualifications and skill sets cover many disciplines that serve industry in a variety of activities that include but are not limited to:

- Plant Sanitation
- Process Design

- Product Formulation
- Thermal Processing
- Fish Nutrition
- Water Recirculation and Treatment
- Developmental Shellfish Biology
- Aquaculture Site Selection
- Fishery by-product research
- Finfish and shellfish health

The main infrastructure of C-ASD includes:

- An HACCP registered 1300 square metre processing plant
- Food engineering and analysis laboratory
- Sensory evaluation room
- Product development kitchen
- 300 square metre food research facility
- Aquaculture research facility with 6 discrete systems including full quarantine

### **DESIRED INVESTMENT PARTNERSHIPS**

In addition to utilizing its own facilities and human resources and those within the faculties of engineering, marine biology, commerce and food science of Memorial University, the Centre seeks out opportunities to network with other academic institutions and the public and private sector to ensure that the best possible results are achieved for each initiative.

## ***ENVIRO-TEST LABORATORIES***

Natural Health Product & Food Testing Division  
9936-67 Avenue  
Edmonton, Alberta T6E 0P5

Telephone: (780) 413-5227  
Toll free: (800) 668-9878  
Facsimile: (780) 437-2311  
E-mail: [info@envirotest.com](mailto:info@envirotest.com)  
Website: [www.envirotest.com](http://www.envirotest.com)

Mr. Sean Lidstone  
Marketing Director, NHP & Food Division

### **NATURE OF BUSINESS**

Using state-of-the-art technology, Enviro-Test Laboratories provides a wide range of quality natural health product & food testing services. We use both standard USP, AOAC, ICH, AOCS as well as validated in-house methods to insure your products comply with the standards of quality you have set out. Your analysis is conducted under Good Manufacturing Practice (GMP) as mandated by Health Canada as your assurance of a quality result. We are also in contact with the Natural Health Products Directorate (NHPD) making sure that changes in the industry are addressed at the analytical level. Important also is our in-depth understanding of self-imposed industry standards. As an industry leader and advocate, we are a member of the Canadian Health Food Association, CANI, BC Functional Food & Nutraceutical Network, and Saskatchewan Nutraceutical Network.

- Herbal Analysis
- Food Analysis
- Natural Supplement Analysis
- Vitamin Analysis
- Microbiological Services

- Pesticide Analysis
- Contract Research
- Food Label Analysis
- Agriculture Services
- Special Services
- Certified Phytochemical Reference Materials
- Metals & Mineral Analysis

### **MAJOR ACHIEVEMENTS**

- Over 250 analytical methods available to the NHP industry
- All services performed in-house within ETL network

Accreditations:

- Health Canada for recognition of GMP compliance
- ISO/IEC 17025
- Standards Council of Canada for recognition of OECD GLP compliance (Edmonton, Ottawa)
- Standards Council of Canada in co-operation with the Canadian Food Inspection Agency (CFIA) for specific microbiological testing (Winnipeg) and feed & fertilizer testing (Saskatoon) as listed in the Scope of Accreditation
- Standards Council of Canada in co-operation with the Canadian Association for Environmental Analytical Laboratories (CAEAL) for specific environment test as registered by the Council (Edmonton, Calgary, Saskatoon, Winnipeg, Thunder Bay, Grande Prairie, Waterloo)
- Standards Council of Canada for specific health related analysis as listed in the Scope of Accreditation (Winnipeg)
- American Industrial Hygiene Association (AIHA) for industrial hygiene analysis (Edmonton, Winnipeg) & Fungi analysis (Winnipeg)

**COMPANY PROFILE**

|                               |  |
|-------------------------------|--|
| Sales Volume:                 | est. \$30 M  |
| R&D Expenditure:              | est. \$1 M   |
| Employees:                    | 350  |
| Facilities:                   | 9 Locations in Canada  |
| Trade:                        | Exporting  |
| Exporting Destinations:       | <ul style="list-style-type: none"><li>• China</li><li>• Taiwan</li><li>• Thailand</li><li>• Jordan</li></ul> |
| Total exports:                | < \$50,000   |
| Percentage of sales exported: | < 2.5%   |
| Ownership:                    | Private  |
| Key Alliances:                | Contact company for details  |

**COMPANY BACKGROUND**

Enviro-Test Laboratories (ETL) has been providing multidisciplinary analytical services since 1982. Over the years, ETL has grown into nine locations within Canada. The company currently employs over 350 highly trained professionals and technicians with diverse specialization.

The ETL management team has an average of 30 years experience within the analytical industry. Our areas of specialization include complete analysis of natural health products, food product analysis, microbiological analysis, toxic chemical and complex organic and inorganic analysis, pesticide analysis, dioxin/furan analysis, industrial hygiene services, and method development. ETL's clients include major natural health product manufacturers and growers, food producers, Environment Canada, environmental consultants, the petroleum industry, and agricultural chemical companies.

**CURRENT ACTIVITIES**

- Providing 3<sup>rd</sup> party analytical services to natural health product growers, manufacturers, and raw ingredient import/exporters.
- Providing food, food label, and specialised testing to the food industry.
- Production of high purity analytical reference standards available to research laboratories.

**DESIRED INVESTMENT PARTNERSHIPS**

Partnerships in development of new & superior natural health products.

## ***NUTRACEUTICALS AND FUNCTIONAL FOODS INSTITUTE***

Pavillon Paul-Comtois, local 2412  
Université Laval  
Sainte-Foy, QC  
Canada G1K 7P4

Telephone : (418) 656-3527  
Fax : (418) 656-5877  
E-Mail : [Danielle.Carpentier@fsaa.ulaval.ca](mailto:Danielle.Carpentier@fsaa.ulaval.ca)  
Website: <http://www.inaf.ulaval.ca>

Paul Paquin, Ph.D.  
Director

Benoît Lamarche, Ph.D.  
Scientific Director

Renée Michaud, M.Sc.  
Development Director

### **NATURE OF ORGANIZATION**

Created in June 1999, the Nutraceuticals and Functional Foods Institute (INAF) is attached to the Faculté des sciences de l'agriculture et de l'alimentation (FSAA) and aims to assemble the expertise needed to meet the public's general expectations regarding functional foods and nutraceuticals. The mission of INAF is one of research, training, development, and technological transfer in fields such as health, nutrition and agri-food.

INAF's research is dedicated to the improvement of human health through nutrition. Its activities are multidisciplinary and are conducted in an integrated framework. INAF is conducting researches to identify bioactive molecules and to develop functional foods that meet consumers' concerns and demand.

### **MAJOR ACHIEVEMENTS**

- A grant of 17.3 M \$ from Canada Foundation for Innovation;
- Modern biochemistry laboratories for screening, extracting, purifying and characterizing bioactive molecules with nutraceutical properties;
- A state-of-the-art laboratory for molecular analysis;
- Laboratories specializing in animal and plant transgenesis used in the production of genetically modified species with nutraceutical properties;
- A separation, fractionation and isolation unit for large-scale production of active molecules;
- A pilot laboratory for food processing;
- A nutritional laboratory for pre-clinical and clinical trials;
- A unit to analyze nutraceutical and functional food markets, analyze consumer behavior and policies governing food products.

### **RESEARCH GROUP PROFILE**

A core of 60 professors-researchers backed by more than 200 research assistants, technicians and graduate students will focus their energy and talent on identifying and developing functional foods and nutraceuticals.

# **FUNCTIONAL FOOD & NUTRACEUTICAL TECHNOLOGIES IN CANADA**

---

INAF essentially regroups scientists of three faculties: FSAA, Medicine Faculty and Pharmacy Faculty. Through a grant from Valorisation-Recherche Québec, INAF created le "Réseau québécois de recherche sur les aliments fonctionnels et les nutraceutiques" gathering researchers from different universities, a college, several R&D organisms as well as government research centres.

## **RESEARCH UNITS:**

### **Research Unit Specializing in Nutraceuticals**

The efforts of this unit are dedicated to identify and characterize new bioactive molecules but also try to demonstrate the nutraceutical properties of known products. In order to do so, they have to design new techniques for extraction and purification. A bioassay platform is continuously refined to better evaluate the action of different molecules on cancer, diabetes, MCV and obesity.

#### **Molecules under study:**

- Lactic bacteria and probiotics;
- Milk peptides;
- Lipids such as CLA and phytosterols;
- Antioxidants such as flavonoids and anthocyanins.

### **Research Unit Specializing in Functional Foods**

The researchers of this unit are orienting their research towards preserving the nutraceutical properties of molecules through out the food processing as well as its absorption by the human body. The scientists are also studying the impact of different food transformation approach such as thermal treatments, cold pasteurisation with high pressure homogenisation and cold drying.

#### **Examples:**

- Study and application in the nutraceuticals and functional foods sector of protein materials to keep its bioactivities;
- Using dynamic high pressure for cold pasteurisation and stabilization of fruit juices.

### **Research Unit Specializing in Human Nutrition**

Purported health benefits must be proven. However it does not suffice to identify, isolate and/or protect nutraceutical molecules. It must also be demonstrated that the molecules preserve their physiological and metabolic effects once they have entered the body. The researchers will study the impact of functional foods and nutraceutical products on the prevention of chronic illnesses such as obesity, diabetes, dyslipidosis and cardiovascular disease.

#### **On going studies:**

- Development of phytosterols products to get a better level of lipids in the blood;
- Supplement of linseed for menopausal women;
- Impact of Mediterranean diet in a North American context.

### **A Group Specializing in Agri-Food Economics**

What are the consumers' expectations towards functional foods and nutraceuticals? How the labelling law is evolving? How international food regulations are influencing the marketing of functional foods and nutraceuticals? The researchers of this group are investigating those questions as well as analyzing the competitiveness and strategies of enterprises to sustain the development of the bio-food industry in Québec.

**On going studies:**

- Evaluation of value, risk, performance, strategies and policies of businesses;
- Analyze the evolution of consumers' perception towards biological products, functional foods and OGM.

**A Group Specializing in Genomic and Proteomic**

This group is trying to enhance the content of nutraceuticals through transgenesis and, at the same time, eliminate some noxious substances such as allergens. These scientists are interested to different nutrients or molecules (vitamins, peptides, flavonoids...) relating to chronic diseases. They are trying to identify genetic or metabolic biomarkers to predict how individuals might react to specific foods or nutraceuticals.

**On going studies:**

- Vegetal protease inhibitors;
- Characterization of genetic and metabolic determinants associated to pharmacologic and nutritional treatments of hyperlipidemias.

**CURRENT ACTIVITIES**

Functional Foods and Nutraceutical Research Institute is doing high-tech research in areas such as:

- Identifying new promising bioactive molecules;
- Producing foods with new properties that have beneficial health effects;
- Developing efficient extraction and purification methods;

- Developing new methods to preserve and/or improve the metabolic activity of bioactive molecules in fresh or processed foods;
- Analyzing and ascertaining the beneficial effects of functional foods and nutraceuticals on human health through laboratory and clinical (biomarker) testing;
- Analyzing appropriate competitive business practices and strategies;
- Determining consumer responses to this new generation of foods.

**DESIRED INVESTMENT  
PARTNERSHIPS**

Research partnerships

## **GUELPH CENTRE FOR FUNCTIONAL FOODS**

Laboratory Services  
A Division of the University of Guelph  
P.O. Box 3650  
95 Stone Road West  
Guelph, ON  
Canada N1H 8J7

Telephone: (519) 767-6246/767-6242  
Facsimile: (519) 767-6240  
E-mail: [info@ilsd.uoguelph.ca](mailto:info@ilsd.uoguelph.ca)  
Website: <http://www.uoguelph.ca/labserv>

Dr. Chung Ja Jackson  
Supervisor, Guelph Centre for Functional Foods

Mr. John Melichercik  
Manager, Analytical Services Unit

### **NATURE OF ORGANIZATION**

Outside clients look to Laboratory Services for expertise in a wide spectrum of technical and scientific fields. Our facility, which provides analytical, diagnostic, regulatory and research services under one roof, offers the perfect setting for high-quality research and testing to take place. When teaming up our leading edge instrumentation and highly trained personnel with the expertise of University of Guelph departments (such as food science, chemistry, molecular biology and pathology), this division provides a complete arena for success.

The complex houses many unique laboratories with leading researchers, including the Guelph Centre for Functional Foods, Food and Dairy Chemistry, the Canadian Urolith Centre, the Guelph Molecular Supercentre, the Veterinary Drug Research Group, the Trace Organics and Pesticide Section and several more.

More than 200 staff members are employed in this division. The profiles of 49 scientists (21 PhD's, 16 Veterinarians) will be available on our website. One hundred technicians lend their expertise. Laboratory Services is comprised of 3 scientific units: Analytical Services, Animal Health, and Regulatory Services.

The mandate of the Analytical Services Unit is to provide high quality analytical services in the areas of functional foods and general food chemistry, molecular biology, analytical microscopy, plant disease diagnostics, and soil and nutrient analyses to clients. Each laboratory unit is also charged with maintaining state-of-the-art technology and services for its clients.

The Guelph Centre for Functional Foods was established to provide specialized analysis of phytochemicals and bioactive components in functional foods and agricultural products. The Centre also engages in collaborative research, which provides clinical evidence for the beneficial health effects of functional ingredients in raw and processed foods.

### **MAJOR ACHIEVEMENTS**

- Provides test results of the highest quality to the food and agricultural industries
- After only 3 years, has gained recognition throughout North America in the analysis of soybeans, soy foods and ginseng



# **FUNCTIONAL FOOD & NUTRACEUTICAL TECHNOLOGIES IN CANADA**

---

- Through its collaborations, the Centre developed international opportunities in France, Japan, United Kingdom, Holland, and the United States

## **COMPANY PROFILE**

Sales Volume: N/A  
R&D Expenditure: N/A  
Employees: <200  
Facilities: Analytical, diagnostic, regulatory and research

Ownership:  
Trade: N/A  
Export destinations: N/A  
(Please list the country (ies) your company is  
Total exports: N/A  
Percentage of sales exported: 0%

Key Alliances:  
Its strategic alliances form an enhanced network in functional foods and nutraceuticals. These alliances include:

- Ontario Ministry of Agriculture and Food.
- Agriculture and AgriFood of Canada.
- Ontario Soybean Growers.
- Ontario Ginseng Growers Association.
- University of Guelph's Departments of Food Science, Crop Science, and Human Biology & Nutritional Sciences.
- University of Toronto, Faculty of Medicine.
- University of Western Ontario, Centre for Human Nutrition.
- Equine Research Centre, Guelph.
- Guelph Food Technology Centre.

## **RESEARCH GROUP PROFILE**

Analytical capabilities in food and agricultural products include:

- Functional Food and Nutraceuticals
- Food Chemistry and microbiology
- Drug residue analysis
- Pesticides and environmental contaminant assays
- Analytical microscopy
- Molecular analyses
- Mass spectrometry
- Plant disease diagnostics
- Soil and nutrient testing
- Animal disease diagnostics & consultation

## **CURRENT ACTIVITIES**

Laboratory Services provides the highest value in analytical laboratory services for the agri-food industry. Currently the Guelph Centre for Functional Foods (GCFF) offers isoflavone profiles (3 aglycones and 12 isomers) and saponins from soybeans and soy foods, in addition to allicin and other organosulphur compounds from garlic, and ginsenosides from ginseng. Analyses of total antioxidant activity and total phenols in fruits and berries in addition to the analysis of St. John's Wort and herbal plants have recently been added. Other analyses including vitamins, nutritional labeling, fibres, fatty acids and amino acids profiles and proximate analyses are also available.

The GCFF continues to develop additional analytical methods to detect bioactive ingredients in functional foods and nutraceuticals. Our scientists use advanced technology to isolate and quantitate these compounds. The Centre is committed to working with industry and government to assist in the discovery, development and registration of nutraceutical products and functional foods, through the delivery of analytical services and contract research.

Establishing links with other laboratories is key to the success of this venture. The GCFF and its partners at Guelph are teaming up with others around the country to form a functional foods network. This will assist in product development and the validation of the health claims through sound clinical trials and analytical method development.

**DESIRED INVESTMENT**

**PARTNERSHIPS**

## **GUELPH FOOD TECHNOLOGY CENTRE**

88 McGilvray Street  
Guelph, ON  
Canada N1G 2W1

Telephone: (519) 821-1246  
Facsimile: (519) 836-1281  
E-mail: [gftc@gftc.ca](mailto:gftc@gftc.ca)  
Website: <http://www.gftc.ca>

Mr. Terry Maurice  
President and CEO

### **NATURE OF ORGANIZATION**

The Guelph Food Technology Centre (GFTC) is an independent, industry-driven corporation that provides confidential, creative solutions on a fee-for-service basis for companies and entrepreneurs to commercialize new food products for domestic and global markets. GFTC provides the food industry with completely confidential access to product development and research facilities. Its services include: product development, process development, shelf-life extension, nutrition labelling, packaging evaluation, pilot-plant services, technical training, customized on-site training, and food safety and quality systems (including HACCP) design, implementation, auditing and accreditation. GFTC also serves as a bridge between basic university or government research and the industry marketplace.

The cornerstone of GFTC is the confidentiality guaranteed to all clients with technical projects. Since GFTC operates on a fee-for-service basis, the clients own their results outright.

### **MAJOR ACHIEVEMENTS**

- Canada's only independent technology transfer centre specializing in food
- Unique bioprocessing facilities, including reverse osmosis, freeze-drying, biocentrifugation and membrane separations, all from lab to pilot-scale
- Canada's largest HACCP trainer

### **RESEARCH GROUP PROFILE**

The GFTC full and part time staff of approximately 20 experienced professionals consists of research scientists, food chemists, dietitians, and product development specialists. External consultants are employed as required and operate under the same confidentiality agreements as all GFTC employees do.

GFTC's location, in the heart of Canada's food industry and close to related federal and provincial government departments, gives clients a neutral venue through which they can get access to government and academic resources with complete confidentiality.

Available facilities/capabilities:

- Approximately 50,000 sq.ft. of pilot plant and laboratory facilities
- Unique bioprocessing and thermal processing facilities
- Over \$ 4M of equipment to cover the basic unit operations needed by various sectors of the food industry, including: dairy, beverages, fats & oils, bakery/milling, meat/poultry processing, fruit/vegetable processing, fermented food products
- Packaging development
- Non-standard analytical support for process, packaging and product development

The Guelph Food Technology Centre has linkages with :

- Ontario Agri-Food Technologies
- Canadian food industry companies, organizations, associations, entrepreneurs, etc.
- American Institute of Baking and AIB International
- American Society for Quality (ASQ)
- Safe Quality Food (SQF)

### **ORGANIZATION BACKGROUND**

GFTC is an independent, not-for-profit company, which operates with complete confidentiality on all client projects, unless the client gives permission for disclosure. Each year, GFTC assists over 500 companies and organizations with technical projects, and provides training to more than 3600 people. Its annual gross sales are approximately \$3.3 million.

### **CURRENT ACTIVITIES**

The Guelph Food Technology Centre provides as much or as little assistance as clients require, from simple use of equipment to full product development.

The GFTC receives and evaluates ingredient samples from suppliers in Canada and around the world. In addition, the GFTC has provided its pilot plants and processing strengths to extract and purify components from both standard and modified agricultural raw materials.

The GFTC assists functional food companies with:

- Developing and adapting formulations
- Process scale-up
- Choosing and sourcing the right ingredients
- Understanding food regulations and labelling requirements, including nutrition labelling, in Canada and the USA
- Selecting a co-packer

- Establishing quality parameters for desired product characteristics
- Shelf-life studies that evaluate sensory, chemical, microbial and physical aspects of a product
- Sourcing the right packaging
- Market analysis
- Packaging development
- Providing access, via membership in GFTC, to a wide range of potential suppliers and retailers
- Public and customized on-site technical training in the issues of particular concern to the functional foods industry, such as food safety (HACCP), food quality (ISO 9000), and trends in functional foods
- On-site assistance with the implementation of GMPs, HACCP and SQF in a food facility
- HACCP Accreditation (in partnership with AIB International)
- Food safety and quality audits, and certification

### **DESIRED INVESTMENT PARTNERSHIPS**

The Guelph Food Technology Centre is an independent business which guarantees non-disclosure of confidential client information, and will collaborate with companies, organizations and entrepreneurs in the food or biotechnology industries and related sectors.

GFTC is also ready, with 50,000 sq. ft. facilities, to collaborate with clients wishing to install and test their own pilot-scale processing lines.

## **HUMAN NUTRACEUTICAL RESEARCH UNIT**

Powell Bldg., Rm. 217  
University of Guelph  
Guelph, Ontario  
Canada N1G 2W1

Telephone: (519) 824-4120, ext. 53749  
Facsimile: (519) 823-5247  
E-mail: [hnru@uoguelph.ca](mailto:hnru@uoguelph.ca)  
Website: <http://www.uoguelph.ca/hnru>

Maggie Laidlaw, M.Sc.  
Interim Director

Bill Bettger, Ph.D.  
Associate Director

Alison Duncan, Ph.D.  
Associate Director

### **NATURE OF ORGANIZATION**

The Human Nutraceutical Research Unit (HNRU) proves the efficacy of nutraceuticals, functional foods and other natural health products with placebo controlled human trials in order to support marketing strategies.

The HNRU has a special interest in research directed towards value-added novel foods that offer health promotion as well as disease prevention and management.

The HNRU is available to the food and natural health product industries to evaluate products in controlled human studies for potential health claims. We assist companies in steering them through the new Health Canada NHP-Directorate guidelines.

### **MAJOR ACHIEVEMENTS**

- The first established human nutraceutical trial unit in Canada
- Collaborations with medical schools and other Universities in Canada, United States, Japan, Korea and others
- Members of the unit collaborate extensively with industry
- Core scientific members are funded by government grants for basic research

#### Key Alliances:

- Guelph Food Technology Centre
- Guelph Centre for Functional Foods
- University of Toronto
- University of Western Ontario
- London Health Science Centre
- Dept. of Food Science, Univ. of Guelph
- Dept. of Animal Science, Univ. of Guelph
- Sunnybrook Health Science Centre
- Ontario Ministry of Agriculture, Food and Rural Affairs
- Ontario Agrifood Technologies
- Agrifood Quality Cluster

### **RESEARCH GROUP PROFILE**

The HNRU is made up of faculty and adjunct faculty members of the Department of Human Biology and Nutritional Sciences at the University of Guelph (25 Ph.D. scientists). The profiles of the core members are available on the website. If a specific expertise is not available within the core scientific group, collaborations with scientists worldwide are established.

Alliances with other departments of the University of Guelph (Food Sciences, Animal Sciences, Guelph Centre for Functional Foods) as well as the Guelph Food Technology Centre allow us to provide expertise in the testing of nutraceutical/functional food efficacy using quality science.

The HNRU offers the following services:

- Consultation to determine feasibility of human trial with your product, includes literature searches (medical and natural health product databases), access of library materials, written report, confidentiality;
- Double-blind placebo controlled human trials including application to Health Canada, subject advertisement, capsule preparation, blinding, study design, statistical analysis, written report, option to publish in peer-reviewed scientific journal and cost based on length of study, number of subjects and biochemical parameters measured; and
- Specific blood tests including (although not limited to) cardiovascular, immunological and hormonal measurements as well as fatty acid analysis, total antioxidant status, amino acids, vitamin and mineral status. We are also equipped to do diet analysis, body hydration status, body composition, bioelectrical impedance, fitness testing, underwater weighing, VO<sub>2</sub> max tests and abdominal fat composition.

### **CURRENT ACTIVITIES**

- Roles of very long chain fatty acids in brain development and chronic degenerative brain diseases
- Sphingomyelin as a nutraceutical
- Role of DHA in cardiovascular disease, male infertility and Alzheimer's disease
- Pyruvate and athletic performance
- Lipid analysis for breast cancer diagnosis
- Muscle metabolism and ergogenic aids
- Leptin and fertility
- Analysis of foods for isoflavones, allicin and ginsenosides
- Natural health products in weight loss, cholesterol lowering, depression, osteoarthritis

### **DESIRED INVESTMENT PARTNERSHIPS**

The HNRU opened for business on January 1, 1999. It provides a one-window approach to nutraceutical efficacy testing at the University of Guelph. The HNRU is committed to quality scientific testing of the efficacy of functional foods and nutraceuticals as well as knowledge advancement through scientific publications and symposiums.

The HNRU is actively seeking industrial, government and research partners. The HNRU is a partner of the National Functional Foods Network in order to assist in the validation of health claims.

## **PHYTOCHEMICAL METABOLISM GROUP, MCGILL UNIVERSITY**

School of Dietetics and Human Nutrition  
Faculty of Agricultural & Environmental Sciences  
McGill University, Macdonald Campus  
21-111 Lakeshore Road  
Ste. Anne de Bellevue, QC  
Canada H9X 3V9

Telephone: (514) 398-7841  
Facsimile: (514) 398-7739  
E-mail: [jonesp@macdonald.mcgill.ca](mailto:jonesp@macdonald.mcgill.ca)  
Website:  
<http://www.agrenv.mcgill.ca/dietetic/index.htm>

Dr. Peter J. Jones  
Professor, Dietetics and Human Nutrition

### **NATURE OF ORGANIZATION**

The objective of the Phytochemical Metabolism Group is to explore health promotional properties of phytosterols contained in foods of the human diet. Over the past 10 years, the dietary actions of plant sterols have been the major research focus, although other plant active components have been investigated including ginseng, saponins, policosanols and fatty alcohols.

Its facilities enable the extraction of active phytochemicals and its Clinical Nutrition Research Unit offers the opportunity to study human subjects as captive in-patients for longer durations. Therefore, the Phytochemical Metabolism Group provides a complete research foundation for the marketing of phytochemicals.

### **MAJOR ACHIEVEMENTS**

- The Clinical Nutrition Research Unit's human subject inpatient residence is unique to the academic and private sectors in Canada
- Over 20 animal and human feeding trials have been completed in the past 5 years

### **RESEARCH GROUP PROFILE**

The phytochemical metabolism research group is formed of researchers from the departments of Plant Science (Dr. Don Smith) and Dietetics and Human Nutrition (Dr. Peter Jones, Dr. Tim Johns). Approximately 25 post-doctoral fellows, graduate students, clinical coordinators, research technicians and kitchen food preparation specialists complement these core scientists.

Facilities include:

- analytical laboratories with extraction and gas chromatography systems for plant sterol and fatty acid separation in foods
- Facilities for plant growth, production, and genetic manipulation
- Isotope ratio and GC-mass spectrometers for studying metabolic responses to phytosterols in humans and animals using stable isotopes
- Animal care facilities for rodents and larger animals
- Seven Maple Clinical Nutrition Research Unit of the School of Dietetics and Human Nutrition is a 4,500 sq.ft. for simultaneous study of up to 12 human subjects as inpatients

Key Alliances:

The research group has worked ,or is working, with several international companies :

- Boehringer Ingelheim
- Forbes Medi-Tech
- Danone Inc.

# ***FUNCTIONAL FOOD & NUTRACEUTICAL TECHNOLOGIES IN CANADA***

---

- Lipton Canada

Members of:

- Canadian Society for Nutritional Scientists
- International Isotope Society

## **CURRENT ACTIVITIES**

The research centre's current activities include:

- The effect of phytochemicals in the diet on cardiovascular disease risk
- Hyperplastic action and antioxidant potential of phytochemicals
- Chemical analyses, stability profiles of phytosterol mixtures from various sources

## **COLLABORATIVE ARRANGEMENTS SOUGHT**

The Phytosterol Metabolism Group at McGill University is committed to fundamental and applied investigations related to improving understanding of the beneficial roles of phytosterols as dietary adjuncts in human health and disease prevention.

The group is open to discussion of sharing its resources in collaborations and technology transfer partnerships with organizations from Canada and abroad that are interested in studying metabolic actions of plant sterols in their broader context.



## **NATIONAL RESEARCH COUNCIL INSTITUTE FOR MARINE BIOSCIENCES**

National Research Council of Canada  
Institute for Marine Biosciences  
1411 Oxford Street  
Halifax, NS  
Canada B3H 3Z1

Telephone: (902) 426-6829  
Facsimile: (902) 426-9413  
E-mail: donna.viger@nrc.ca  
Website: <http://www.nrc.ca/imb>

Donna Viger  
Manager, Business Program and Administrative  
Services

### **NATURE OF ORGANIZATION**

The Institute for Marine Biosciences (IMB) is one of five NRC biotechnology laboratories. The others are the Biotechnology Research Institute, the Institute for Biodiagnostics, the Institute for Biological Sciences and the Plant Biotechnology Institute. The Group conducts world class R&D targeting health care, pharmaceuticals, natural resources and the environment.

IMB works with industrial partners and clients in two key areas that promise tremendous growth for Canada – Aquaculture and Genomics.

Our Aquaculture program contributes knowledge through research on finfish, shellfish, and seaplants. Research focuses on minimizing disease in aquacultured species, improving nutrition and survival, ensuring seafood safety, and diversifying the industry.

In our Genomics program we develop platform technologies in DNA sequencing, protein analysis, and bioinformatics that have wide applications. We do high-efficiency large scale DNA sequencing, assembly and analyses. Through our efforts in proteomics we are bridging the gap between genome sequence information and cellular function. Our bioinformatic capabilities facilitate the analysis of the rapidly accumulating protein and DNA sequence data.

### **MAJOR ACHIEVEMENTS**

- Recognized worldwide for its expertise related to marine toxins and toxigenic marine microalgae. The institute prepares and sells the world's only certified analytical standards and reference materials for such toxins
- Developed technology for large scale, land-based aquaculture of marine plants now used by Canadian companies for the production of sea vegetables and seaweeds containing valuable extracts
- Developed Canada's finest team in organic mass spectrometry
- Established as the Canadian leader in advanced DNA sequencing and associated bioinformatics, and operates the *Canadian Bioinformatics Resource* (CBR), which provides convenient, effective access to biotechnology-related databases and bioinformatic software tools.
- Past product development and service successes include: purified phycotoxins, algal extracts with plant growth regulating properties, new sea vegetable products, enzyme assay methods for identifying the active fraction of an anti-cancer compound under development, numerous purity checks and quality control analyses for clients

### **RESEARCH GROUP PROFILE**

The Institute's main laboratory, 80,000 sq.ft., is located on the campus of Dalhousie University in Halifax, Nova Scotia. It also operates an Aquaculture Research Station on the Atlantic coast, 25 kilometers from Halifax.

Research facilities include laboratories and associated instrumentation for:

- finfish, shellfish and marine plant aquaculture as well as environmentally controlled chambers and photobioreactors for culturing microorganisms
- fish and shellfish health and nutrition
- light and electron microscopy
- bioorganic chemistry/NMR spectroscopy
- analytical chemistry/advanced mass spectrometry
- molecular biology and genomics
- bioinformatics
- a GLP chemistry facility for studies supporting regulatory submissions

## ***FUNCTIONAL FOOD & NUTRACEUTICAL TECHNOLOGIES IN CANADA***

---

With over 60 scientists, approximately half of which have Ph.D.'s, IMB assembles multidisciplinary project teams with the skill sets and support required to meet the research objectives of its clients.

Key Alliances:

- National Research Council (NRC)'s Canada Institute for Scientific and Technical Information (CISTI - with its Halifax branch on site at IMB)
- NRC's Industrial Research Assistance Program (IRAP - with its regional office on site at IMB)

### **CURRENT ACTIVITIES**

In addition to core research in its program areas, IMB is active in various partnerships, including:

**Acadian Seaplants Limited** - license for a strain of seaweed and cultivation/processing methods used in producing a new sea vegetable

**Ocean Nutrition Canada Ltd.** - scientific advice and laboratory facilities for developing a marine bioproduct health product line

**Ocean Produce International** - license for a strain of seaweed being sold worldwide as a food product

**Connors Bros. Ltd.** - provision of nutritional advice on formulations for salmon diets and collaboration on the development of haddock as an alternate species for aquaculture

**Jellett Biotek Inc.** - scientific advice and laboratory facilities for the company's development of a diagnostic kit for monitoring natural toxins in seafood

**Xenon BioResearch Inc.** - provide large scale sequencing and development of relational databases to facilitate the development of human therapeutics

**Kinetek Pharmaceuticals Inc.** – application of proteomics and bioinformatics in drug discovery

### **COLLABORATIVE ARRANGEMENTS**

#### **SOUGHT**

The Institute is seeking research investors and collaborators to develop new marine-based bioproducts. Also sought are clients interested in large-scale DNA sequencing and analysis services. Flexible arrangements can be developed to share the associated work and risk. IMB's collaborators can also tap into NRC's national network of expertise and facilities.

## **NATURAL HEALTH PRODUCTS TECHNOLOGY CLUSTER**

University of Guelph  
Guelph, Ontario  
Canada N1G 2W1

Telephone: (519) 824-4120, ext. 53749  
Facsimile: (519) 823-5247  
E-mail: [nhptc@uoguelph.ca](mailto:nhptc@uoguelph.ca)  
Website: <http://www.uoguelph.ca/nhptc>

Maggie Laidlaw  
Interim Director

William Bettger  
Associate Director

### **NATURE OF ORGANIZATION**

The Natural Health Products Technology Cluster (NHPTC) is an organization dedicated to increasing the size and global competitiveness of the natural health products industry in Southern Ontario.

The Cluster focuses on natural health products that can be absorbed into the body via skin, nasal passage, lung or mouth. This includes:

- herbal remedies, such as those used by traditional herbalists, and by practitioners of traditional North American aboriginal medicine, Ayurvedic medicine and Traditional Chinese Medicine;
- vitamin and mineral supplements
- nutraceuticals
- some cosmetics
- aromatherapy
- sports nutrition
- homeopathic remedies

### **MAJOR ACHIEVEMENTS**

- NHPTC members are presently being recruited. For a membership update see the NHPTC website. Surveys have been conducted in order to determine what the goals and services of the NHPTC should be.

### **COMPANY PROFILE**

Key Alliances:

- University of Guelph (Human Nutraceutical Research Unit and Guelph Centre for Functional Food)
- Puresource Natural Products
- Guelph Food Technology Centre
- Ontario Ministry of Agriculture, Food and Rural Affairs

### **RESEARCH GROUP PROFILE**

The name "Natural Health Products Technology Cluster" reflects the need of a cluster for the industry.

The term "technology" is used in a broader context than simply "information technology" or "biotechnology". For example, technology advances in techniques and equipment used for activities such as harvesting, processing and quality measurement will give our members' products a competitive advantage.

Clusters are geographic concentrations of businesses in the same industry, as well as their suppliers, associations and supporting organizations such as research facilities and educational institutions.

### **CURRENT ACTIVITIES**

Work to lay the foundation for the cluster began early in the summer of 1999. One of these activities was to identify potential services to be provided by the cluster. The NHPTC recently completed a survey of potential cluster members to determine the highest priority services to include in the initial phase of the cluster implementation.

Subsets of members will be encouraged and supported to work together to satisfy shared needs. Two examples of the many possible collaborative arrangements are joint purchasing agreements and common marketing campaigns.

Some of the services under consideration are:

- Expand web site, e.g., add links to sites of interest to NHP industry, list contact information and summary of products and services provided by each member, describe partnering opportunities in “member only” section, list employment opportunities
- Organize and/or provide information on meetings, conferences and trade shows
- Increase community awareness of NHPs
- Foster research
- Cultivate specialized services, such as. legal, financial, and public relations
- Dialogue with Health Canada;
- Provide support to meet regulatory requirements
- Promote quality NHPs
- Develop and/or identify quality certification services
- Document education/training services
- Assist members to take full advantage of government programs
- Promote and support collaboration among members to increase their competitiveness

### **DESIRED INVESTMENT PARTNERSHIPS**

The NHPTC is seeking interested members in the southern Ontario area. Members will consist of, but not be limited to NHP growers, marketers, distributors, researchers, suppliers, associations and sales outlets.

## **PEI FOOD TECHNOLOGY CENTRE**

P.O. Box 2000  
Charlottetown, PEI  
Canada C1A 7N8

Telephone: (902) 368-5548  
Facsimile: (902) 368-5549  
E-mail: [peiftc@gov.pe.ca](mailto:peiftc@gov.pe.ca)  
Website: <http://www.gov.pe.ca/ftc>

Richard Ablett  
Executive Director

### **NATURE OF ORGANIZATION**

The P.E.I. Food Technology Centre (FTC) is an ISO 9001 registered company, providing consistent quality to its clients.

FTC assists clients in the development of new and improved food products and processes as well as nutrition labeling.

### **MAJOR ACHIEVEMENTS**

- Has achieved ISO 9001 (International Organisation for Standardisation) Quality System registration for all its services
- FTC's Pilot Plant is also accredited by the Canadian Food Inspection Agency for processing most seafood and agri-food products
- Member of the Canadian Technology Network, a national network of technology and expertise
- FTC has successfully completed major projects in areas of pesticide residue concerns, microbial issues, and in establishing and providing routine quality control support services

### **RESEARCH GROUP PROFILE**

Situated on Canada's east coast in Charlottetown, FTC was established in 1987 to provide scientific and technical expertise to the agriculture and fisheries industries.

The 15,000 square foot facility is located within a scientific community in the campus of the University of Prince Edward Island.

The facility includes an instrumentation laboratory, microbiological and chemical laboratories, and a product development laboratory. Commercial-scale food products and food processes are developed in a functional and certified pilot plant. A wide array of state-of-the-art scientific instruments, with on-line data management and statistical analysis is in place for analyses, food quality and safety programs, and basic research.

FTC's 2,000 square foot Pilot Plant is federally inspected for marine and agri-food processing. This means that clients can test their product for national and international markets before going to the expense of establishing a full-sized production unit. FTC's Pilot Plant is equipped for a variety of processes, and is capable of manufacturing a wide range of food products.

Key Alliances:

- National Research Council Canada
- Canadian Technology Network

### **CURRENT ACTIVITIES**

FTC's professional team has now grown to include approximately thirty food scientists, technicians, and support staff.

FTC's programs are specifically designed to build quality and safety into food products for small to medium-sized food processors. Activities include:

- Product Development

- Analytical Services
- Nutritional Labelling
- Food Safety
- Trouble Shooting
- Sensory Analysis
- Research and Development
- Strategic Partnering

FTC labelling services include:

- Core nutrient information
- Expanded profiles (cholesterol, vitamins and minerals, etc.)
- Label design in compliance with Federal regulations
- Identification of allowable claims (“cholesterol-free”, “low-fat”, “reduced salt”, etc.)
- Liaison with government agencies (for label review and other details)
- Verification of accuracy and legitimacy of claims
- Verification of ingredient listing
- Assurance of product compliance with “standards of identity”

### **COLLABORATIVE ARRANGEMENTS SOUGHT**

The Strategic Partnering Division pursues proactive food industry development and partnership arrangements on a local and international level.

FTC has partnering interests with the following:

- Established agri-food and seafood producers and processors seeking innovation and diversification.
- High net worth investors seeking new opportunities and diversification of assets, equipments and ingredients.
- Manufacturers seeking applications extension opportunities.
- Public sector Development Agencies and NGO's seeking "appropriate fit" economic development initiatives. The Centre is also involved in Technology Transfer. From a worldwide network, FTC selects appropriate technologies for clients and customizes them to fit their specific requirements.

## ***POS PILOT PLANT CORPORATION***

#1000-118 Veterinary Road  
Saskatoon, SK  
Canada S7N 2R4

Telephone: (306) 978-2888  
Facsimile: (306) 975-3766  
E-mail: [pos@pos.ca](mailto:pos@pos.ca)  
Website: <http://www.pos.ca>

Robert E. Morgan  
President

### **NATURE OF ORGANIZATION**

POS is a confidential, contract applied R&D and specialty toll processing facility specializing in bioprocessing solutions. With a vision as “A Global Leader in Providing Bioprocessing Solutions” and a mission of “Excellence in Service through Dedicated Staff Providing Bioprocessing Solutions that Enhance Our Clients’ Competitiveness”, POS is positioned to continue its leadership role in the industry.

The two-story pilot plant facility contains 54,000 square feet (5,000 square meters) and is located on a 5.6 acre site at Innovation Place. It is designed to facilitate the development of value-added bioprocessing technologies for products such as cereal grains, oilseeds, herbs, plant components and fermentation products. Originally opened in 1977, POS continually enhances its pilot plant and laboratory capabilities to meet evolving industry needs. With 11 laboratories and 5 separate processing areas, POS capabilities focus on extraction, fractionation, purification and modification. The pilot plant is divided into four basic areas: Primary (cleaning, milling, dry separation and oilseed crushing), secondary (centrifugation, evaporation, drying, reacting and other wet processes), oil processing (degumming, refining, bleaching, deodorizing and crystallization) and Flammable (solvent extraction, hydrogenation and solvent processes).

### **MAJOR ACHIEVEMENTS**

- Facility expansions to accommodate rising demand on services.
- Development of a unique 24 hour pilot plant operation with a full staff of dedicated and trained Operators provides pragmatic execution of bioprocesses including custom processing.
- Addition of key pieces of equipment designed to accommodate nutraceutical and functional foods R&D and processing on on several scales: laboratory, mini pilot plant scale, and regular pilot plant scale.
- Development of one stop shopping with integrated analytical and bench-scale capabilities to develop and support pilot plant activities.
- Development of a cGMP-compliant environment, quality assurance capability and consulting service to address issues such as GMP and regulatory compliance.

# ***FUNCTIONAL FOOD & NUTRACEUTICAL TECHNOLOGIES IN CANADA***

---

## **COMPANY PROFILE**

|                               |              |
|-------------------------------|--------------|
| Sales Volume:                 | \$1-\$50,000 |
| R&D Expenditure:              |              |
| Employees:                    | 75           |
| Facilities:                   |              |
| Ownership:                    |              |
| Trade:                        | N/A          |
| Total exports:                | N/A          |
| Percentage of sales exported: | 0%           |

Operations Group which includes:

- Fully equipped pilot plant with over 100 pieces of pilot scale industrial equipment. Much of the equipment is mobile allowing custom configurations to meet client needs.
- Trained and dedicated Process Technicians and Equipment Operators to plan and execute pilot scale processes.
- Extensive support equipment including a wide variety of pumps and material handling equipment, instrumentation and services such as vacuum, nitrogen, steam and water.

## **RESEARCH GROUP PROFILE**

- POS offers an integrated service which is tailored to client needs supported by 75 dedicated staff including scientists, engineers, technicians, equipment operators, logistics personnel and information research and retrieval staff. Projects are structured to bring a distinctive blend of people, expertise and technology that clients need. POS resources are organized into two major departments:

Scientific Group which includes:

- Scientific staff who work closely with clients to develop programs and oversee project execution.
- Fully equipped laboratories with an extensive array of analytical and bench scale test equipment.
- Technicians who execute bench scale processing and process analysis.
- An accredited analytical services lab providing a wide array of analysis.
- A quality assurance group to provide support for processes requiring cGMP or regulatory compliance.
- Information services to perform online searches and library of relevant books and journals.

## **CURRENT ACTIVITIES**

POS Pilot Plant Corporation provides confidential contract applied R&D and specialty toll processing services, laboratory and analytical services.

## **DESIRED INVESTMENT**

### **PARTNERSHIPS**

POS Pilot Plant Corp. is open to all questions and inquiries concerning collaborative arrangements, and is interested in participating in activities with industry, universities, or government both in Canada and abroad.



## **RICHARDSON CENTRE FOR FUNCTIONAL FOODS AND NUTRACEUTICALS (RCFFN)**

Address: Room 256 Agriculture Building  
University of Manitoba  
Winnipeg, MB

Telephone: 204-474-9713

Facsimile: 204-474-7525

E-mail: [ffn\\_centre@umanitoba.ca](mailto:ffn_centre@umanitoba.ca)

Website: <http://www.umanitoba.ca/research/rcffn/>

Contact: Kelley Fitzpatrick  
Title: Marketing & Research Development  
Manager

### **NATURE OF ORGANIZATION**

Richardson Centre for Functional Foods & Nutraceuticals provides a facility for researchers and industry to develop functional foods and nutraceuticals based on scientific safety and efficacy.

In fulfilling its mission, RCFFN has two roles, that of research and promoting an economically viable industry. The Centre will focus on the development of products from existing and potential crops of western Canada, including but not limited to grains, oilseeds and pulses and scientific assessment of health promotion attributes of these products.

### **MAJOR ACHIEVEMENTS**

- Secured \$25 million in funding for building and infrastructure

- Have taken a lead in establishing a Canadian Functional Food and Nutraceuticals Research Network

### **ORGANIZATIONAL PROFILE**

|                  |   |
|------------------|---|
| Sales Volume:    | <\$50,000   |
| R&D Expenditure: | • \$10 - \$50 Million   |
| Employees:       | five  |
| Facilities:      | 55 000 square feet for analytical, molecular biological & food safety labs, growth chambers, animal research, pilot plant and administrative offices. |
| Ownership:       | Private   |

### **Key Alliances:**

- James Richardson & Sons, Ltd.
- Western Economic Diversification
- Province of Manitoba
- CIBC
- Manitoba Rural Adaptation Council (MRAC)
- University of Manitoba
  - Faculty of Agricultural and Food Sciences
  - Faculty of Human Ecology
  - Faculty of Medicine
    - National Centre for Agri-Food Research in Medicine
  - Faculty of Pharmacy
- AAFC Cereal Research Centre
- Grain Research Laboratory – Canadian Grain Commission
- NRC – Institute for Biodiagnostics
- Canadian International Grains Institute
- Portage Food Development Centre
- Alberta Research Council
- NRC – Plant Biotechnology Institute
- POS Pilot Plant
- INAF, University of Laval

## **ORGANIZATIONAL BACKGROUND**

Announced in 2000 as an integrated research and development centre and is funded through federal and provincial governments, as well as private sector investors.

Currently, 50 researchers are contributing to the centre's research. The equipment planned to be incorporated into the facility will enable researchers to:

- Quantify and determine the structural characterization of any targeted bio-active compounds or component
- Identify and quantify the existence of the bio-actives in plants
- Establish parameters for effective processing for bio-activity preservation.

## **CURRENT ACTIVITIES**

Research in five key areas:

- Enhancement
- Identification
- Extraction
- Safety & Efficacy Assessment
- Consumer Acceptability

## **DESIRED INVESTMENT**

### **PARTNERSHIPS**

Collaborations and strategic partnerships with industry and research centres in all areas of functional foods and nutraceuticals including innovative technologies for the development of functional foods and nutraceuticals.

## **NATIONAL CENTRE FOR AGRI-FOOD RESEARCH IN MEDICINE**

St. Boniface General Hospital Research Centre  
351 Taché Ave.  
Winnipeg, MB  
R2H 2A6 Canada

Telephone: (204) 235-3939  
Facsimile: (204) 231-1151  
E-mail: [gpierce@sbrc.ca](mailto:gpierce@sbrc.ca)  
Website: <http://www.sbrc.ca/ncarm>

Dr. Grant N. Pierce, PhD, FACC, FAHA  
Director

### **NATURE OF BUSINESS**

The St. Boniface General Hospital Research Centre (SBRC) is a state-of-the-art four-floor medical research facility located in Winnipeg, Manitoba. The SBRC clusters 190 researchers and support staff working in the areas of basic and applied cardiovascular sciences, infectious diseases, neurodegenerative diseases, sleep disorders, respiratory medicine, nephrology, epidemiology, anesthesia and oncology. A recent addition to the facility is the laboratories housing the *National Centre for Agri-food Research in Medicine (NCARM)*. The six laboratories that comprise the NCARM study the health-related benefits of natural health products (nutraceuticals and functional foods).

The Centre is unique among institutions that conduct research in the field of nutraceuticals/functional foods in that it is immersed in a building dedicated to medical research, as opposed to the traditional agricultural research environment. NCARM research concentrates on establishing (or refuting) with solid scientific experimentation, the health-related claims associated with a variety of natural health products, primarily (but not restricted to) those that can be grown in the prairie region. Identifying the active ingredients responsible for any health related action of such products is another priority. The Centre also participate in the dissemination of information concerning natural health products to the informed scientific community and to the general public through lectures, published material, organized conferences and workshops and via the Internet ([www.sbrc.ca/ncarm](http://www.sbrc.ca/ncarm)).

The new Asper Clinical Research Institute (ACRI) constructed next door to SBRC has extended the capabilities of NCARM to include clinical trials. The ACRI is one of only three such facilities in Canada capable of completing Phase I-III clinical trials. This now allows NCARM to complete basic science discovery investigations on natural health products as well as Phase I-III controlled clinical studies. This research opportunity is unequalled in North America.

### **MAJOR ACHIEVEMENTS**

The possibility exists that other plant-based oils (like flaxseed oil and hempseed oil) may have similar beneficial effects on the cardiovascular system. They too contain omega-3 fatty acids. Furthermore, ingestion of fish oils is not well tolerated by some people. Studies have been completed in both animals to determine mechanisms of action and in humans. Major trials in this area are currently proposed and under preparation. We expect trials to be conducted in the future and to be a focal point for our work.

# FUNCTIONAL FOOD & NUTRACEUTICAL TECHNOLOGIES IN CANADA

In association with the Centre for Substance Use in Sports and Health (SUSH) and industry (CV Technologies, Inc.), we successfully tested a nutraceutical product (Cold FX®) for its capacity to induce a positive doping control urinalysis. This is the first study of its kind to examine a nutraceutical for banned substances using strict IOC-approved guidelines. These data are important for the athletes' confidence in using a nutraceutical, important for industry as a marketing tool, and provides critical information needed by the World Anti-Doping Agency (WADA) in a time when nutraceuticals are being blamed increasingly for positive urinalysis tests.

Percentage of sales exported: 0%

## Key Alliances:

- University of Manitoba
- St. Boniface General Hospital Research Foundation
- Canadian Institutes for Health Research
- Heart & Stroke Foundation of Manitoba
- Manitoba Health Research Council
- Flax Council of Canada
- Saskatchewan Flax Development Cooperation
- Centre for Substance Use in Sport and Health (SUSH)
- Bioriginal Food and Science
- Hemp Oil Canada Inc.
- Canadian Centre for Ethics In Sports
- CV Technologies Inc.
- Richardson Centre for Functional Foods & Nutraceuticals

## COMPANY PROFILE

Sales Volume: N/A  
R&D Expenditure:  
Employees: 190  
Facilities: Services and facilities currently offered by the Centre include: State-of-the-art wet lab space is available to support basic biochemical analyses, molecular biology, cell biology, cell culture, and pharmaceutical studies. The labs are equipped with the latest instruments to accomplish this work in the most accurate and efficient manner possible. This includes (but is only a potential list) centrifuges, ultracentrifuges, a cryostat, scintillation counters, FACS, HPLC, GC/MS, platelet aggregometer and many other instruments.

Ownership:  
Trade: N/A  
Total exports: N/A

## RESEARCH GROUP PROFILE

Developed in 1999, the National Centre for Agri-food Research in Medicine is a new research initiative funded by a multi-million dollar partnership of the federal and provincial governments through ARDI (Agricultural Research Development Initiative) with the St. Boniface General Hospital Research Centre. The NCARM staff consists of a director, three Principal Investigators, a clinical trials manager, technicians, graduate students and other support staff. With a new Clinical Research Institute (capable of testing Phase I-III trials) physically linked to the St. Boniface General Hospital Research Centre set to begin construction in 2002, the possibilities and potential for both basic science and clinical nutraceutical research at the NCARM are unparalleled across Canada and North America.

Services and facilities currently offered by the Centre include:

State-of-the-art wet lab space is available to support basic biochemical analyses, molecular biology, cell biology, cell culture, and pharmaceutical studies. The labs are equipped with the latest instruments to accomplish this work in the most accurate and efficient manner possible. This includes (but is only a potential list) centrifuges, ultracentrifuges, a cryostat, scintillation counters, FACS, HPLC, GC/MS, platelet aggregometer and many other instruments.

Phase I-III clinical trials.

## **ORGANIZATIONAL BACKGROUND**

In 1999, the Federal government, the Manitoba provincial government and St. Boniface General Hospital Research Centre collaborated to fund and develop the National Centre for Agri-food Research in Medicine. This Winnipeg based initiative includes four laboratories with a primary focus upon determining the health related benefits of nutraceutical plant extracts. The Centre is a member of the Saskatchewan Nutraceutical Network (SNN).

The Centre holds an attractive niche in Canada due to its location within a traditional medical research facility and its focus upon the emerging area of nutraceuticals. Research is conducted at both a basic science level as well as in the area of human clinical trials. The identification of the role of cellular signalling pathways and disease risk reduction and prevention is a focus of current medical research.

Research into the health related benefits of nutraceuticals could profit both the medical and the agricultural industries. The National Centre for Agri-Food Research in Medicine has received \$3 million from provincial and federal sources. The money has been directed toward salaries, lab equipment, research grants, and construction.

## **CURRENT ACTIVITIES**

Current research activities of the Centre include:

- i) *Non-human and clinical* studies investigating:
  - The effects of flax on the development of atherosclerosis in mice.
  - The cellular basis of the anti-arrhythmic and cardio-protective action of flax in ischemic challenge in animals.
  - A comparative study of the effect of fish oil, flaxseed oil and hempseed oil supplementation on plasma lipids, LDL oxidation, inflammatory profile, and platelet function in healthy humans
  - The effects of phytosterols in a model of coronary transplant atherosclerosis
  - The effects of trace elements in diabetes mellitus
  - The health related benefits of CLA
  - The effects of folic acid on vascular and renal disorders associated with hyperhomocysteinemia
  - Cardiovascular effects of a variety of Chinese herbal medicines

# ***FUNCTIONAL FOOD & NUTRACEUTICAL TECHNOLOGIES IN CANADA***

---

- ii) Development of a website designed to provide the public and the medical community with reliable, accurate information about the health related benefits of key nutraceuticals/functional foods including flax, hemp, oats, wheat, buckwheat, evening primrose oil, borage oil, canola oil, Echinacea, ginseng, Ginkgo biloba, St. John's wort and garlic among others.

## **COLLABORATIVE ARRANGEMENTS SOUGHT**

The National Centre for Agri-food Research in Medicine is not restricted to partnering only with academia. The Centre plans to foster close ties with industry to promote mutually beneficial research interactions. To this end, Biovan Inc., a new biopharmaceutical company interested in researching a novel nutraceutical/insulinomimetic agent for the treatment of diabetes, has occupied one of the NCARM labs to further their product development. The Centre hopes to extend interactions of this kind in the future with other developing companies or established industrial partners who are looking for a fruitful, dynamic scientific environment in which to grow and prosper.

## UNIVERSITY OF ALBERTA

Department of Agricultural, Food and Nutritional Science

Faculty of Agriculture, Forestry and Home Economics

University of Alberta, Room 410

Agriculture/Forestry Centre

Edmonton, AB, Canada T6G 2P5

Telephone: (780) 492-3239

Facsimile: (780) 492-4265

E-mail: [chair@afns.ualberta.ca](mailto:chair@afns.ualberta.ca)

John J. Kennelly, Chair, Department of AFNS

### NATURE OF ORGANIZATION

#### *Department of AFNS*

At the University of Alberta, the activities of the Department of AFNS focus on the entire food chain and its effect on human health (Food for Health). The Department is committed to an integrative approach to the production, processing and utilization of food of agricultural origin and to developing future strengths in three linked strategic areas: production efficiency and sustainability, agri-food technology, and human health and nutrition.

Research groups in the department include: biochemistry/biotechnology, bioengineering, food/food products, genetics/breeding, horticulture, nutrition, animal physiology, plant protection, animal production/management and range/forages.

#### *University of Alberta's Food for Health Program*

The Food for Health Program is a multi-disciplinary, cross-Faculty initiative. Proponents include the Faculties of Medicine and Physical Education and Recreation.

The vision of the University of Alberta is to work collaboratively with other institutions and agencies to develop the Food for Health Program to stimulate:

- a) economic growth within the Province through development of new technologies and food products derived from crop and animal agriculture,
- b) ensure that our food supply is safe and nutritious, and
- c) contribute to the health and well-being of Albertans by understanding the relationships between diet and human health performance.

### MAJOR ACHIEVEMENTS

- With programs that integrate teaching and research in plant science, animal science, bioresource engineering, food science and nutrition, AFNS is the first university department of its kind in North America
- The research program in fatty acid metabolism and infant requirements for essential fatty acids is internationally recognized
- The department's laboratory complex is well-known internationally for its state-of-the-art equipment and well-developed support facilities

### ORGANIZATIONAL PROFILE

Employees: 298

Facilities: The AFNS research facilities are located on the main campus of the university.

Key Alliances:

- University of Alberta's faculties of Medicine, Pharmacy and Science
- Agriculture and Agri-Food Canada

- Provincial Food Processing Development Centre, Alberta
- University of Calgary's Faculty of Medicine

### **RESEARCH GROUP PROFILE**

The Department of Agricultural, Food and Nutritional Science is well positioned to serve all sectors of the food industry based on a unique range and depth of staff interdisciplinary interests and skills. This staff includes 41 professors, 22 adjunct professors, 22 professors emeriti, 130 graduate students, and 83 support staff. The AFNS research facilities are located on the main campus of the University of Alberta with other excellent facilities located nearby at the Edmonton Research Station and Ellerslie Research Station. The Central Laboratories on campus provide:

- Modern analytical and associated facilities
- Research laboratories (biochemistry, microbiology, tissue culture)
- Capability for some pilot plant work
- Molecular Biology and Biotechnology Centre
- Plant growth facilities (15 greenhouses, 3 growth rooms, 2 plant tissue culture rooms, 40 plant growth cabinets)

Off-site research facilities include:

- Metabolic Research Unit (for studies in large animal physiology and metabolism)
- Dairy Research Unit
- Poultry Research Unit
- Crop and Land Research Unit

### **CURRENT ACTIVITIES**

Numerous studies are ongoing in collaboration with various companies and industries. Some work in the functional foods and nutraceuticals area includes:

- Rhubarb stalk powder: lipid lowering effect in hypercholesterolemic humans and animals

- Barley  $\beta$  glucans: extraction, purification and use in foods with nutraceutical properties. Soluble fibre effects on lowering cholesterol, regulation of blood glucose, and reducing colon cancer
- Dietary fibre: effects on gut hormones, insulin secretion and glucose tolerance
- Phytic acid from legumes and cereals: anti-cancer properties
- Dairy ingredients
  1.  $\beta$ -lactoglobulin as a retinal binding protein
  2. Calcium effects on osteoporosis
  3. Incorporation of unsaturated fatty acids into cow's milk
  4. Lactoferrin as an anti-microbial ingredient
  5. Caseinoglycopeptide: effects on phenylketonuria
- Cheese-whey proteins: putative health benefits and potential nutraceutical products incorporating whey protein ingredients
- Designer eggs: influence of Omega-3 fatty acids on plasma lipids
- Antibody production in egg yolks
- Elk antler extracts
  1. Anti-inflammatory factors
  2. Pharmacological characterization
- $\beta$  carotene: effects on cancer

### **DESIRED INVESTMENT**

### **PARTNERSHIPS**

The Department of Agricultural, Food and Nutritional Sciences believes that the necessary support for successful integrated research programs can only be achieved through the development of effective short term and long term alliances with industry and government agencies.



The Department is actively developing a network of researchers, funding agencies, government, and industry partners in the area of functional foods and nutraceuticals. The network involves partners across Canada as well as some international institutes. The Department is currently seeking to expand its network and collaborative programs in the areas of nutrition and metabolism, socio-economics, and innovative technologies for the development of functional foods and nutraceuticals.

## **FOOD RESEARCH CENTRE, UNIVERSITÉ DE MONCTON**

Pavillon Jacqueline-Bouchard  
University of Moncton  
Moncton, NB  
Canada E1A 3E9

Telephone: (506) 858-4284  
Facsimile: (506) 858-4540  
E-mail: [cra@umoncton.ca](mailto:cra@umoncton.ca)  
Website: <http://www.umoncton.ca/cra>

Dr. Lita Villalon  
Director

### **NATURE OF ORGANIZATION**

The research and development work undertaken at the Food Research Centre focuses on the agri-food and marine sectors. It provides research services primarily to food processors in the Atlantic food industry, especially New Brunswick. The centre's services include: new product and process development; optimizing or reformulating existing product lines; concept development and evaluation; scale-up assistance; shelf life/stability studies; and chemical, microbial, and sensory analyses. Its services are geared mainly towards small and medium sized enterprises, to complement the company's available resources.

Since its formation, the Food Research Centre has also been involved in professional training programs. The programs provide quality control and technical training for employees in the food industry. The knowledge and skills gained enable employees to perform better in the laboratory and to adapt more easily to changes in technology. The Food Research Centre also has a library and database of the latest food science and technical information for maintaining a competitive edge.

### **MAJOR ACHIEVEMENTS**

- Established International partnerships with Haiti and Mauritania
- Set up of a National Quality Management Program for privately owned companies in Morocco
- Set up of HACCP plan in various industries
- Research program in biotechnology of dairy products, more specifically in the production of aromatic mesophilic lactic acid starters
- Responsible for the training of government inspectors in sensory evaluation
- Lead national studies to evaluate the nutritional composition of turkey, pork, crab, and chicken
- ISO 9002 registered for the microbiological and chemical laboratories

### **RESEARCH GROUP PROFILE**

The Food Research Centre was established in 1983 as part of the University of Moncton. The staff of 9 (2 Ph.D.'s and 3 M.Sc.'s) has particular expertise in value-added foods. The Centre currently has four departments: product development and technical services, analytical chemistry services, microbiological services, and sensory evaluation services. The facilities available in the 3500 sq.ft. centre include state-of-the-art instruments such as:

Chromatography

- Multiple gas chromatography, auto sampler, integrators with F.I.D. detectors
- High performance liquid chromatography with U.V. visible, R.I. and fluorescence detection

### Spectroscopy

- Fourier transform infrared spectrophotometer
- U.V.-visible spectrophotometer

### Microbiology

- Vitek automated bacterial identification system
- Mini VIDAS for the detection of *Listeria*
- Bactometer

### Other instruments

- Automated protein analysis
- Automated fat analysis
- Automated soluble and insoluble fibre analysis
- Automated temperature recording equipment and computerized methods to establish thermal processes for food preservation

### Key Alliances:

- Université de Moncton
- Agriculture and Agri-Food Canada
- BioAtlantech
- Provincial government of New Brunswick
- Université Laval
- Access to a pool of local agri-food and marine manufacturers

## **CURRENT ACTIVITIES**

The Food Research Centre is currently working on various research projects that include:

- Industrial management of the production of aromatic mesophilic lactic acid starters

- Development of a research program assessing, studying and resolving problems regarding safety of fresh produce from field to plate
- Training and laboratory set-up in Haiti

The centre, in conjunction with other research centres in Quebec, is also conducting research into the control of temperatures of perishable foods during transportation, warehousing, and retailing.

## **DESIRED INVESTMENT PARTNERSHIPS**

Research collaborations and partnerships are sought with research centres and industries to develop joint research projects that have industrial relevance and commercial feasibility.

## **UNIVERSITY OF TORONTO**

Department of Nutritional Sciences  
Faculty of Medicine  
FitzGerald Building  
150 College Street  
Toronto, ON  
Canada M5S 3E2

Telephone: (416) 978-2422  
Facsimile: (416) 971-2366  
E-mail: m.archer@utoronto.ca  
Website: <http://www.utoronto.ca/nutrisci>

Dr. Michael C. Archer  
Professor and Chair

### **NATURE OF ORGANIZATION**

The Department of Nutritional Sciences is a basic science department within the Faculty of Medicine and serves as a focal point for teaching and research in the area of human nutrition. It offers opportunities to study the interactions of food and nutrition in health and disease.

The Department's mission is to advance human health through research, teaching and leadership in the field of nutritional sciences. This field extends along a broad continuum from molecular mechanisms of nutrient action to optimizing health strategies for the individual and for the population.

The etiology of the major diseases observed in the developed world are diet-related. As a result, many of the faculty members in the Department have focused their research to further understand the significance of diet in reducing the risk of cancer, cardiovascular disease, diabetes and obesity.

### **MAJOR ACHIEVEMENTS**

- Internationally recognized faculty members in the area of functional foods and nutraceuticals
- The highest research publication output among all the nutrition departments within Canada over the past five years
- Received two large Natural Sciences and Engineering Research Council of Canada (NSERC)-Industry collaborative research grants for the creation of the Program in Food Safety, Nutrition and Regulatory Affairs (PFSNRA) and an NSERC-Industry Research Chair in Nutritional Toxicology
- Research examining the health benefits of food components (e.g. lycopene, flaxseed, dietary fibre) have led to several partnerships with the private sector
- Food products have been developed and tested in collaboration with the food industry:
  - ready-to-eat breakfast cereals
  - entrees
  - vegetable protein meat substitutes
- A leadership University-Industry affiliation created under the PFSNRA.

### **COMPANY PROFILE**

Key Alliances:

- University of Guelph
- University of Western Ontario
- Ryerson Polytechnic University
- McMaster University
- Clinical Nutrition and Risk Factor Modification Centre for diet studies in disease, St. Michael's Hospital
- Centre for Research in Women's Health, Women's College Hospital
- Clinical Research Unit for Geriatric Care, Baycrest Geriatric Centre

## ***FUNCTIONAL FOOD & NUTRACEUTICAL TECHNOLOGIES IN CANADA***

---

- Paediatric Nutrition and GI Division, Hospital for Sick Children
- Sunnybrook Health Science Centre
- Toronto Hospital
- International Life Sciences Institute (ILSI)
- National Institute of Nutrition (NIN)
- Health Canada
- Ontario Ministry of Health
- Ontario Ministry of Agriculture, Food and Rural Affairs
- Food and Consumer Products Manufacturers of Canada (FCPMC)
- Numerous companies from the food and pharmaceutical industries

Members of:

- Canadian Society for Nutritional Sciences
- Federation of American Societies for Experimental Biology

### **RESEARCH GROUP PROFILE**

There are presently 31 faculty members in the Department. Twelve of these are members of the core department, while the remainder are cross-appointed from clinical departments, research institutes and the food industry. At any time there are roughly 12 postdoctoral fellows 10 technical staff and 90 graduate students pursuing their Ph.D., M.Sc. or M.H.Sc. degrees.

The Department's Program in Food Safety, Nutrition and Regulatory Affairs provides the scientific expertise in the following areas:

- nutrient addition foods
- regulations concerning functional foods, nutraceuticals and health claims
- the Ontario Food Survey
- university-industry collaborative research projects

Facilities include:

- Analytical expertise to determine the content of amino acids, fatty acids, carbohydrate, protein, vitamins and minerals in foods
- Human study facilities
- Experimental animal facilities
- Mass spectrometry unit
- Tissue culture laboratories
- Imaging facility
- Diet packing station for large scale metabolic studies
- Faecal processing unit

### **CURRENT ACTIVITIES**

Current research activities range from molecular to epidemiological studies:

- Diet and cancer
- Diet and diabetes
- Diet and cardiovascular disease
- Diet and brain function
- Food intake regulation
- Eating disorders
- Functional foods and nutraceuticals
- Nutritional and cancer epidemiology
- Nutritional toxicology
- Fatty acid and lipid metabolism
- Carbohydrate and fiber metabolism
- Protein and amino acid metabolism
- Folate metabolism
- Paediatric nutrition
- Geriatric nutrition
- Food insecurity
- Food policy
- Sociology of foods and nutrition

The Department also hosts guest seminars open to the public on topical nutrition and health issues.

**DESIRED INVESTMENT PARTNERSHIPS**

The University of Toronto's Department of Nutritional Sciences is seeking research partnerships with the private sector to test, develop and promote functional foods and nutraceuticals.

## **Contact Information**

Allison Miranda  
Food Value Chain Bureau  
Agriculture and Agri-Food Canada  
930 Carling Ave, 5<sup>th</sup> Floor  
Ottawa, ON CANADA  
K1A 0C5

Telephone: (613) 759-7702

Fascimile: (613) 759-7480

Email: [mirandaa@agr.gc.ca](mailto:mirandaa@agr.gc.ca)

Website: [http://www.agr.gc.ca/misb/fb-ba/nutra/index\\_e.php](http://www.agr.gc.ca/misb/fb-ba/nutra/index_e.php)