

An overview of Manitoba's life sciences expertise,
infrastructure and research capabilities



Manitoba Life Sciences Industry Directory

Corporate and Research Institution Profiles

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Our Location

Manitoba – a great place to do business

A mid-continent location, excellent transportation links and a highly diversified economy ensure Manitoba a consistently strong economic climate. Covering just over 650,000 square kilometres (250,000 square miles), this prairie province is home to over a million people.

Manitoba's capital city of Winnipeg is located in the geographical centre of North America with close proximity to the United States. Serviced by three continental railways and home to half the country's largest trucking firms and an international airport operating 24 hours a day, Winnipeg maintains its historic position as a major transportation hub. As well, the province's central time zone makes it easy for local businesses to communicate with contacts across the continent.

Manitoba also boasts an educated and highly-skilled labour force, a dependable infrastructure and low business costs. Not only is Manitoba an excellent place to do business – it also provides an exceptional quality of life, offering residents a rich variety of social, cultural and recreational benefits.

Proactive and supportive government

Manitoba's responsible and forward-thinking fiscal and regulatory environment promotes stability. Provincial government assistance programs for business plan development, feasibility studies, capital expansions and technology commercialization improve opportunities for biotechnology businesses locating here.

The Manitoba government promotes an environment that supports innovation by offering competitive marketplace policies, responsive tax programs, significant investment in R&D, and training to prepare Manitoba's workforce for the knowledge-based economy.



The Manitoba Advantage

An Attractive Life Sciences Environment

The biotechnology industry in Manitoba represents a dedicated pool of expertise in biomedical and agricultural research. Numerous players, including established corporations with a biotechnology division, universities, research institutes, government laboratories, venture capital firms, regulatory authorities and suppliers – involved directly or indirectly in biotechnology – have taken advantage of Manitoba's cost-effective research environment. All of this is underscored by a recent Conference Board of Canada Report that calls Manitoba's R&D tax program for biotech ventures "one of the most attractive in North America."

Global Excellence

Manitoba is home to a strategic cluster of biotechnology companies that form an efficient and synergistic chain of researchers, start-up companies, SMEs and large international corporations, all linked to a network of biotech suppliers. Manitoba is internationally recognized for technical expertise in:

- Proteomics
- Bioinformatics
- Biological mass spectrometry
- Gene expression analysis
- Marker-assisted selection of genes
- Population analysis
- Conventional and hybrid breeding
- Bacterial fermentation

Manitoba is also home to unique world-class research facilities:

- the Canadian Science Centre for Human and Animal Health - the first and only global centre with level-4 bio-containment capability for the study of both human and animal disease
- the National Research Council Institute for Biodiagnostics (IBD) - the most state-of-the-art facility in Canada for studying and developing NMR and MRI technologies
- Agriculture and Agri-Food Canada's Cereal Research Centre - the national headquarters for R&D within the areas of cereal genomics, pathology and biotechnology related to development of improved wheat and oat varieties
- the National Centre for Agri-Food Research In Medicine - a unique facility in Canada that examines the effects that nutraceuticals, functional foods and food components have on human health and well-being

Skills

Consulting services		•	•	•																																			
Controlled environments						•	•																																
Contract R&D			•	•	•			•																															
Fermentation				•	•																																		
Product development				•	•				•	•																													
Waste treatment				•						•		•																											
Other:		•																																					
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Companies

- ADE & Company
- Ag-Quest Inc.
- Avalon Institute of Applied Science Inc.
- Cargene Corporation
- Conviron (Controlled Environments Ltd.)
- Enconair Ecological Chambers Inc.
- ICMS Inc.
- Kane Biotech Inc.
- Manitoba Hydro
- Osono Enterprises Inc.

Research Institutions

- Bioremediation Group (Department of Microbiology)
- University of Manitoba – Research



Company Profiles

companies

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research institutions

AcSION Industries Inc.

Parent Company:	Same
Company Founded:	1998
President:	Chris Saunders
Biotechnical activities since:	1998
Nature of business activities:	<ul style="list-style-type: none">• Sterilization• Pathogen reduction
Core technologies and expertise:	<ul style="list-style-type: none">• Electron accelerator technology• Dosimetry• Effects of radiation on materials
Specialized facilities/equipment:	<ul style="list-style-type: none">• Electron accelerator• Gamma facility• Dosimetry
Certifications:	<ul style="list-style-type: none">• FDA registered
Partnering/collaboration sought or offered:	<ul style="list-style-type: none">• Seeking partnerships to establish contract service• Sterilization facilities in Canada and in United States

Public Contact: Terry Stepanik
Address: 1 ARA Mooradian Way,
P.O. Box 429
Pinawa, Manitoba
Canada R0E 1L0
Telephone: (204) 753-2255
Fax: (204) 753-8466
E-mail: acsion@acsion.com
Website: www.acsion.com

ADE & Company Patent and Trade-Mark Agents

Public Contact: Mike Williams
Address: 1700-360 Main Street
 Winnipeg, Manitoba
 Canada R3C 3Z3
Telephone: (204) 947-1429
Fax: (204) 942-5723
E-mail: info@adeco.com
Website: www.adeco.com

Parent Company: Same
Company Founded: 1947
No. of Employees: 8
Biotechnical activities since: 1996
Nature of business activities:

- Search services including patent searches, patentability, infringement, validity, name searches, subject matter searches, patent watches, trademark searches, design searches, copyright searches, and assignment searches
- Preparation, filing and prosecution of: patents, National Phase Entry of PCT Applications, designs, trademarks, copyrights, and plant patents/plant breeders rights
- These services can be carried out in Canada, the U.S. and all other countries where appropriate systems are in place
- Other legal services, including litigation, business agreements and financial arrangements are available through our affiliated firm Fillmore Riley

Specialized facilities/equipment:
Certifications:

None
 Canadian and U.S. registered patent agents

Advanta Seeds

Parent Company: Same
Company Founded: 1985
President: Bruce Howison
No. of Employees: 66

Nature of
business activities:

- Breeds, produces and markets a wide range of canola hybrids and varieties

Public Contact: Dr. Greg Buzza
Address: Unit 3-75 Scurfield Boulevard
Winnipeg, Manitoba
Canada R3Y 1P6
Telephone: (204) 488-4064
Fax: (204) 488-4766
E-mail: info@advantacan.com
Website: www.advantacan.com

Ag-Quest Inc.

Parent Company: Same
Company Founded: 1983
No. of Employees: 20

Nature of
business activities:
Core technologies
and expertise:
Specialized
capabilities:

- Contract agricultural research services
- Research specializing in GLP environmental fate, efficacy, and plant variety trials
- Ag-Quest Inc. provides independent agricultural research services in five locations across Western Canada. Services include: consulting (China & Middle East), pesticide efficacy and fate, plant breeding services and product demonstration

Public Contact: David Rourke
Address: P.O. Box 144
Minto, Manitoba
Canada R0K 1M0
Telephone: (204) 776-2087
Fax: (204) 776-2250
E-Mail: agquest@agquest.com
Website: www.agquest.com

Agriprogress Inc.

Public Contact: Dr. Ottmar Philipp
Address: Box 2499
 Morden, Manitoba
 Canada R6M 1C2
Telephone: (204) 331-3611
Fax: (204) 325-8052
E-Mail: agriprogressinc@mts.net

Parent Company: Same
Company Founded: 1986
No. of Employees: 5

Nature of business activities:

- Agriculture and consulting, plant breeding, contract R&D, product development, seed multiplication and export

Core technologies, specialized skills and expertise:

- Confined GMO trials
- Parent seed productions
- Variety development and marketing

Specialized capabilities:

- Independent contract research, consulting, variety development and registration, breeder agents
- Contract seed production from breeder seed to certified export of seeds

Important Patents/licenses:

- Numerous variety licenses

Current strategic partnerships or alliances

- Norddeutsche, Pflanzenzucht, Hans-Georg Lembke KG
- Hohenlieth
- 24363 Holtsee (Germany)

Partnering/collaboration sought or offered:

- Offering collaborations and seeking collaborations on special quality traits development in canola (*Brassica nopus L.* and other special oilseed crops)

Apotex Fermentation Inc.

Company Founded: 1992
No. of Employees: 138

Nature of business activities:

Core technologies, specialized skills and expertise:

Specialized capabilities:

Partnering/collaboration sought or offered:

- Research, development and production of active pharmaceutical ingredients under GMP
- Fermentation-based pharmaceuticals including strain improvement, media development, chemical extraction and purification
- Pharmaceutical R&D services
- Bulk generic pharmaceutical production
- Fermentation-based process development, scale up and production for smaller scale requirements such as clinical trials and limited market pharmaceuticals

Public Contact: Lori Christafalos
Address: 50 Scurfield Boulevard
Winnipeg, Manitoba
Canada R3Y 1G4
Telephone: (204) 989-6063
Fax: (204) 989-9160
E-mail: info@apoferm.mb.ca
Website: www.apoferm.mb.ca

Atlas Laboratories Co. Ltd.

Public Contact: Dr. Andy Hsu
Address: 757 Sargent Avenue
Winnipeg, Manitoba
Canada R3E 0B3
Telephone: (204) 775-2707
Fax: (204) 783-9664

Company Founded:	1977
President:	Dr. Andy Hsu
No. of Employees:	10
Biotechnical activities since:	1977
Nature of business activities:	<ul style="list-style-type: none">• Manufactures and supplies clinical diagnostic products within the province of Manitoba, producing very low cost reagents for local markets
Core technologies and expertise:	<ul style="list-style-type: none">• Microbiology-based manufacturer of antibodies, culture media• Bulk production of custom-designed antibodies using a range of animals, including sheep, horse, pig, and guinea pig• Customized diagnostic reagents
Current strategic partnerships/alliances:	<ul style="list-style-type: none">• Ingram & Bell• Sarstedt – Germany• Unipath – United Kingdom
Partnering/collaboration sought or offered:	<ul style="list-style-type: none">• Offering expertise in customized antibodies and reagents• Seeking marketing channels within Canada

Avalon Institute of Applied Science Inc.

Public Contact: Dr. Valentina Yanko-Hombach
Address: 3227 Roblin Boulevard
Winnipeg, Manitoba
Canada R3R 0C2
Telephone: (204) 489-4569
Fax: (204) 489-5782
E-Mail: valyan@avalon-institute.org
Website: www.avalon-institute.org

Nature of
business activities:

Core technologies,
specialized skills
and expertise:

Specialized
capabilities:

- Research focus on bio-environmental aspects
- Early warning monitoring
- The Avalon Institute of Applied Science Inc. is a private academic institution that specializes in RESEARCH, CONSULTING and TRAINING in environmental science, geological sciences, biological sciences, biotechnology, engineering, automation systems and information technologies for the benefit of the environment, human health and welfare.
- The Avalon Institute was established in 1999 in Winnipeg, Manitoba, Canada, as a successor to Anamet Scientific Services Ltd. in Tel Aviv, Israel. The Avalon Institute works with a core staff based in Winnipeg, Manitoba, and has built up a network of international specialists from around the world. All of the specialists in our network are distinguished professionals, with long histories of successfully completed projects, and most of our specialists maintain their individual positions as professors of universities. Thus, the Avalon Institute is not limited by the walls of one single institution, but can distribute each part of a project to a specialist, assuring not only the most competent but also most economical service. The broad cultural bandwidth of our staff guarantees the knowledge of the mentality of many countries, and also the multilingual capability of the Avalon Institute. Our staff is particularly experienced with projects in Eastern European countries and in developing nations.
- The Avalon Institute provides services that may be as simple as a sample core analysis, or a more elaborate data interpretation in our laboratories, or up to complete, extensive R&D projects. Although we accept entire research projects, the Avalon Institute can be considered a valuable partner for any ongoing geological, biological, microbiological and environmental research, providing the most competent data analysis and data interpretation.
- With a highly competent specialized faculty at its disposal, the seminars, courses, and workshops of the Avalon Institute cover the same broad spectrum of the environmental field as the research services. Most of Avalon's faculty has experience in teaching university-level graduate courses in their fields of specialization, and the Avalon Institute offers many of these topics in the form of three- to five-day courses and workshops, complete with team exercises. Whether participants are new university graduates or have long-term professional experience, the faculty of the Avalon Institute can provide them with the most up-to-date knowledge in virtually any topic related to the environmental field. Nobody offers a more complete and up-to-date continuing education package for professionals facing the pressing issue of environmental protection.
- In order to bridge the communication gap between academia and industry, the Avalon Institute presents the main achievements of the scientific world through a series of domestic and international conferences, workshops, and seminars, as well as the publication of books and proceedings.
- Various European universities
- Application in Canada and elsewhere in the Americas

Current strategic
partnerships or alliances

Partnering/collaboration
sought or offered:

Biovail Corporation

Parent Company:

President:
No. of Employees:
Branch Offices:

Biotechnical activities since:
Nature of business activities:
Core technologies and expertise:

Specialized facilities/equipment:

Certifications:
Current strategic partnerships/alliances:

Biovail Corporation -
Mississauga, Ontario

Eugene Melnyk

456

Raleigh, North Carolina
Chantilly, Virginia
Carolina and Dorado, Puerto Rico
Sandyford, Ireland

- Pharmaceutical products - tablets/capsules
- Biovail Corporation is a fully integrated, specialty pharmaceutical company engaged in the formulation, clinical testing, registration, manufacture, sale and promotion of pharmaceutical products utilizing advance drug delivery technologies for chronic drug therapies
- Steinbach - extended release tablets/capsules
- Chantilly - flash dose
- Dorado - extended release and flash dose products
- FDA/TPD approved facilities
- TEVA - United States of America
- Forest Laboratories - United States of America
- GSK (GlaxoSmithKline) - United States of America

Public Contact: Rob Harris
Address: 100 Lifesciences Parkway
P.O. Box 21390
Steinbach, Manitoba
Canada R0A 2T3
Telephone: (204) 326-9000
Fax: (204) 326-9800
Website: www.biovail.com

Brett-Young Seeds Ltd.

Parent Company:
Company Founded:
President:
No. of Employees:
Branch Offices:

Same
1984
Lloyd Dyck
120
Rycroft, Alberta
Red Deer, Alberta
Gilbert Plains, Manitoba

Biotechnical
activities since:
Nature of
business activities:
Core technologies
and expertise:

- 1999
- Seed sales and marketing
 - Forage
 - Canola and native seed production and processing
 - Testing
 - Breeding and marketing
 - Inoculant distribution

Specialized
facilities/equipment:

- Seed Quality Labs
- Growth Rooms
- Microbiology Lab
- Canadian Seed Institute

Certifications:
Current strategic
partnerships/alliances:
Partnering/collaboration
sought or offered:

- Other private seed companies
- Plant growth promoting Rhizobacteria

Public Contact: Rene Mabon
Address: P.O. Box 99, St. Norbert P.S.
Winnipeg, Manitoba
Canada R3V 1L5
Telephone: (204) 261-7932
Fax: (204) 275-7333
Toll-free: 1-800-665-5015
E-mail: renem@byseeds.com
Website: www.byseeds.com

Cangene Corporation

Public Contact: Dr. John Langstaff
Address: 104 Chancellor Matheson Road
 Winnipeg, Manitoba
 Canada R3T 5Y3
Telephone: (204) 275-4200
Fax: (204) 269-7003
Toll-free: 1-877-226-4363
E-mail: aluis@cangene.com
Website: www.cangene.com

No. of Employees:

602

Nature of business activities:

- Hyperimmunes (specialty antibodies), development and manufacturer of biopharmaceuticals, contract manufacturing

Core technologies, specialized skills and expertise:

- Cangene is a technology-driven organization with a leadership position in manufacturing specialty plasma-based products (hyperimmunes)
- Cangene is also a global leader in the development of generic versions of the original biotech products whose patents are expiring using the recombinant technologies of the biotechnology industry

Specialized capabilities:

- Research, development, manufacture and global marketing of specialty immune globulin products
- Research and development of biotechnology products
- Cangene's patented production technology
- Contract research, manufacturing, formulation and filling
- Monoclonal antibody development capabilities
- Packaging
- Aseptic filling of small volume parenteral products

Current strategic partnerships or alliances:

- Research and development agreements with Apotex Inc.

Cardiovascular Solutions Inc.

President:
E-mail:
Biotechnical
activities since:

Kevin McGarry
kmcgarry@lombardlifesciences.com
1998

Nature of
business activities:
Core technologies
and expertise:

- Drug development
- Anti-restenosis
- Anti-inflammation

Specialized
facilities/equipment:

- Specialized laboratories at the St. Boniface General Hospital Research Centre, Winnipeg, Manitoba

Important
patents/licenses:

- Multiple provisional patents for core technology
- Patent US 6544 541

Current strategic
partnerships/alliances:

- Western Life Sciences Venture Fund LP
- Lombard Life Sciences
- St. Boniface General Hospital Research Centre

Address: 300-140 Bannatyne Avenue
Winnipeg, Manitoba
Canada R3B 3C5

Telephone: (204) 943-0066

Fax: (204) 943-7646

Website: www.lombardlifesciences.com

Contrimune Biotechnology Inc.

Address: 300-140 Bannatyne Avenue
Winnipeg, Manitoba
Canada R3B 3C5

Telephone: (204) 943-0066

Fax: (204) 943-7646

Website: www.lombardlifesciences.com

Parent Company:

Same

President:

Kevin McGarry

E-mail:

kmcgarry@lomardlifesciences.com

**Nature of
business activities:**

- Drug development

**Core technologies
and expertise:**

- Anti-cancer therapeutics
- Anti-inflammatory
- Anti-retroviral

**Specialized
facilities/equipment:**

- Specialized laboratories at the St. Boniface General Hospital Research Centre, Winnipeg, Manitoba

**Important
patents/licenses:**

- Multiple provisional patents for core technology

**Current strategic
partnerships/alliances:**

- Western Life Sciences Venture Fund LP
- Lombard Life Sciences
- St. Boniface General Hospital Research Centre

Convion

Company Founded: 1964
No. of Employees: 130

Address: 590 Berry Street
Winnipeg, Manitoba
Canada R3H 0R9

Telephone: (204) 786-6451

Fax: (204) 786-7646

E-mail: sales@convion.com

Website: www.convion.com

Nature of business activities:

- Manufactures and installs controlled environment systems for the precise control of temperature, humidity, light and irrigation for research applications
- Manufactures plant growth chambers and rooms, plant production rooms, tissue culture rooms, incubators, germinators and dew rooms

Core technologies, specialized skills and expertise:

- Expertise in controlled environment has been applied in pharmaceutical, nutraceutical, entomology and other applications requiring precise environmental control

Current strategic partnerships or alliances

- 70 international authorized distributors

Partnering/collaboration sought or offered:

- Additional distributors needed for international export

Cronus BioPharma Inc.

Parent Company: Same
President: Lyle Merrell
E-mail: cronus@mts.net
No. of Employees: 1
Biotechnical activities since: December 2000
Nature of business activities:

- Bronchodilator development

Core technologies and expertise:

- Airway smooth muscle physiology

Public Contact: Lyle Merrell
Address: 5 Donald Street - Suite 200
Winnipeg, Manitoba
Canada R3L 2T4
Telephone: (204) 477-1611
Fax: (204) 477-1643
E-mail: cronus@mts.net

DiaMedica Inc.

Parent Company: Same
 Company Founded: 2000
 President: Dr. Wayne Lault
 No. of Employees: 6

Biotechnical activities since: 2000

Nature of business activities:

Core technologies and expertise:

Specialized facilities/equipment:

Important patents/licenses:

Current strategic partnerships/alliances:

Partnering/collaboration sought or offered:

- Drug discovery and development company
- Focus on novel therapeutics that stimulate the release of Hepatic Insulin-Sensitizing Substance (HISS) for Type 2 diabetics
- To develop new therapeutic agents to treat and diagnose diabetes based on the existence of HISS
- Dr. Wayne Lault is the principle inventor of the diabetes technology and directs the current ongoing research
- Dallas Legare is Chief Operations Officer with 22 years research experience
- Dr. Mark d'Almeida is Lead Scientist and has international research experience
- Dr. Albert Friesen, CEO and co-founder, is an experienced bio-entrepreneur and has helped found several health industry companies including Rh Pharmaceuticals (now Cangene Corporation), ABI Biotechnology (acquired by Apotex Inc.), Novopharm Biotech Inc., Genesys Pharma Inc., KAM Scientific Inc., and Medicare Inc.
- Dawson Reimer, MAES, has been involved in DiaMedica since its inception and has experience facilitating the development of new biotechnology ventures
- Research conducted within a designated area at the Chown Building at the University of Manitoba Health Sciences Centre
- DiaMedica currently has one U.S. patent
- Four patents pending relating to therapeutic approaches to Type 2 diabetes
- Research agreement with a major pharmaceutical partner
- Alliances with major pharmaceutical companies for development and/or screening of potential Type 2 diabetes therapeutics and diagnostics

Public Contact: Dawson Reimer
 Address: 6-1200 Waverley Street
 Winnipeg, Manitoba
 Canada R3T 0P4
 Telephone: (204) 487-2328
 Fax: (204) 488-9823
 E-mail: info@diamedica.com
 Website: www.diamedica.com

Dominion Veterinary Laboratories

Parent Company: Same
Company Founded: Early 1950s
President: Sheldon Earn
No. of Employees: 35
Branch Offices: Ontario
Saskatchewan
Alberta

- Nature of business activities:** • Manufacturing veterinary pharmaceuticals including contract manufacturing
- Core technologies and expertise:** • Same as above
- Specialized facilities/equipment:** • Equipment and rooms to manufacture boluses, tablets, ointments, powders, and liquids
- Certifications:** • Laboratory is accredited by the Government of Canada

Public Contact: Shane Earn
Address: 800 Main Street
RPO Redwood Centre
Winnipeg, Manitoba
Canada R2W 3N7
Telephone: (204) 589-7361
Fax: (204) 943-9612
Toll-free: 1-800-465-7122
E-mail: david@domvet.com
Website: www.domvet.com

Enconair Ecological Chambers Inc.

Parent Company: Same
Company Founded: 1992
President: Robert Pauls
E-mail: rpauls@enconair.com
No. of Employees: 15

Nature of business activities:

Core technologies and expertise:

Specialized facilities/equipment:

- Manufacture and design plant growth chambers, tissue culture chambers, incubators, seed germinators, environment rooms and related products
- Engineer products to control temperature, humidity, lighting and carbon dioxide
- Lab equipment for plant research

Public Contact: Bill Porter
Address: 477 Jarvis Street
Winnipeg, Manitoba
Canada R2W 3A8
Telephone: (204) 589-8900
Fax: (204) 582-1024
Toll-free: 1-800-361-7778
E-mail: info@enconair.com
Website: www.enconair.com

Food Development Centre

Company Founded: 1978
No. of Employees: 18

Nature of business activities:

- Food engineering and process development
- Product development
- Custom processing and co-packaging
- Food analysis and nutritional labelling
- Sensory evaluation and shelf-life tests
- Information and library services
- Training and technology transfer
- Off-site plant trouble shooting

Core technologies, specialized skills and expertise:

- Cooking
- Frying
- Smoking
- Baking
- Battering and breading
- Blanching
- Membrane filtration
- Pasteurization
- Cryogenic freezing
- Dehydration
- Modified atmosphere packaging
- Packaging
- Fermentation
- Crystallization
- Extraction
- Commercial scale and pilot scale

Specialized capabilities:

- The Food Development Centre provides professional services to assist the food, feed and beverage industries in the following areas: product feasibility studies, product formulation & recipe development, ingredient sourcing & evaluation, consumer preference studies, regulatory compliance assistance, process development, colour, viscosity & texture testing, test market production and packaging (licensed pilot plant for processed food production), quality assurance
- Programs; shelf-life studies, plant sanitation audits, and seminars, conferences & workshops

Current strategic partnerships or alliances:

- Great Plains Aseptic Processors (GPAP), using Tetra Pak technology for liquid food processing and packaging

Partnering/collaboration sought or offered:

- Food or related product processing for research and development

Public Contact: Markus Schmulgen
Address: 810 Phillips Street
 Portage La Prairie, Manitoba
 Canada R1N 3J9
Telephone: (204) 239-3150
Fax: (204) 239-3180
Toll Free: 1-800-870-1044
E-Mail: mschmulg@fdc.mb.ca
Website: www.fdc.mb.ca

Genesys Venture Inc.

Parent Company: Crocus Investment Fund,
Manitoba Science and
Technology Fund,
AD Friesen Holdings LTD

Company Founded: 1998

President: Dr. Albert Friesen

E-mail: afriesen@genesysventure.com

No. of Employees: 7

**Biotechnical
activities since:** 1998

**Nature of
business activities:**

- Business incubator that provides experienced biotech management, market and technical expertise, and access to early stage capital to emerging health and biotechnology ventures
- Consultant to industry and public organizations on issues related to health technology and bio-industry development

**Core technologies
and expertise:**

- Provide business development expertise to emerging health and biotechnology ventures
- Albert D. Friesen, President and CEO, holds a PhD in protein chemistry and has been instrumental in founding several health industry companies. His efforts have lead to the establishment of several cGMP production facilities and initiation of numerous pharmaceutical candidates
- Dawson Reimer, Director of Business Development, lead in numerous biotechnology ventures by developing business plans, obtaining financing, and developing intellectual property protection
- Marcus Enns, Director of Corporate Affairs, oversees treasury activities and plays a major role in the funding process for GVI clients

**Current strategic
partnerships/alliances:**

- Co-owned by the Manitoba Science and Technology Fund, a venture capital fund dedicated to growth of the sector within Manitoba, and the Crocus Investment Fund, a Manitoba labour-sponsored investment fund with nearly \$200 million in assets under administration and more than 30,000 Manitoba shareholders
- Also benefit from a strong relationship with the University of Manitoba and all three levels of government
- Clients: Medicare, Diamedica, Kane Biotech, and Miraculins
- GVI is open to explore new partnership and venture creation opportunities presented by investors or by aspiring technology ventures

**Partnering/collaboration
sought or offered:**

32 companies

research institutions

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Winnipeg, Manitoba
Canada R3T 0P4
Telephone: (204) 487-2328
Fax: (204) 488-9823
E-mail: info@genesysventure.com
Website: www.genesysventure.com

Health Care Products Association of Manitoba

Public Contact: Marguerite Laramée
Address: 464-435 Ellice Avenue
 Winnipeg, Manitoba
 Canada R3B 1Y6
Telephone: (204) 942-3829
Fax: (204) 942-3833
E-mail: info@hcpam.com
Website: www.hcpam.com

Company Founded: 1990
No. of Employees: 2

Nature of business activities:

- An incorporated, non-profit association representing manufacturers of pharmaceuticals and medical devices in the Province of Manitoba
- Co-ordinates training, information and networking opportunities for its members
- Assists members with the delivery of programs which foster increased market access and the attainment of relevant international quality standards

Specialized capabilities:

- The Health Care Products Association of Manitoba (HCPAM) is an incorporated, non-profit association representing manufacturers of pharmaceuticals and medical devices, dedicated to assisting the growth of all its member companies
- Special focus is on the development of the biotech/pharmaceutical medical device industry
- Co-ordinates training, information and networking opportunities for its members
- Creates opportunities which foster increased market access, attainment of relevant quality standards, and business development networking among members and other partners

Current strategic partnerships or alliances:

- Manitoba Energy, Science and Technology
- Manitoba Advanced Education and Training
- The Government of Canada – IRAP/NRC
- Industry Canada
- Agriculture and Agri-Food Canada
- Manitoba Environmental Industries Association
- Manitoba Food Processors Association
- BIOTECanada

Public Contact: Lesley Stewart
Address: MS744 – 320 Sherbrook Street
Winnipeg, Manitoba
Canada R3A 1R9
Telephone: (204) 787-2084
Fax: (204) 787-4547

Nature of
business activities:

- Preparation and submission of protocols, amendments and consent forms to Ethics Committees
- Matching pharmaceutical companies with investigators for clinical trials
- Facilitating (within the Manitoba Clinical Research Initiative shared mandate) opportunities for training in the fundamentals for Good Clinical Practice (GCP)
- Assisting with budget preparation and projections prior to a clinical trial
- Assisting in the review of clinical trial agreements
- Special research-related project co-ordination

Core technologies
and expertise:

- The Health *Trials* Research Co-ordinator Database assists investigators to find qualified clinical research Co-ordinators

Hill Top Research Inc.

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Winnipeg, Manitoba
Canada R3L 2W2
Telephone: (204) 453-1835
Fax: (204) 475-4029
E-mail: wlazer@hill-top.com
Website: www.hill-top.com

Company Founded: 1988
No. of Employees: 35

Nature of business activities:
Core technologies, specialized skills and expertise:
Specialized capabilities:

- Clinical research
- Safety and efficacy testing, pharmaceutical testing
- Contract clinical testing services to the personal care, consumer products and pharmaceutical industries
- Providing safety and efficiency testing for grooming and health care products
- Contact allergy, irritation, moisturization and SPF testing
- Phase II-IV outpatient studies for a broad range of prescription and OTC drug therapies
- Advantages: 55 years of experience, technical expertise
- Pharmaceutical companies

Partnering/collaboration sought or offered:

ICMS (Integrated Crop Management Services) Inc.

Parent Company: Same
Company Founded: 1985
President: Brent Wright
E-mail: wright@icms-inc.com

No. of Employees: 16 full-time
15-20 seasonal

Branch Offices: Portage la Prairie, Manitoba; Saskatoon, Saskatchewan;
Leduc, Alberta; Abbotsford, British Columbia

Biotechnical activities since: 1990

Nature of business activities:

- Field and controlled environment evaluation of plant and plant input material (including inoculants, biostimulants, and biopesticides)
- Confined release field studies evaluating plants with novel traits (GMOs) according to Canadian Food Inspection Agency (CFIA) guidelines
- Post-season monitoring of confined release field sites
- Project management and consulting
- Scientific and technology transfer presentations

Core technologies and expertise:

- Extensive experience with standard operating procedures governing study conduct, substance control logs, and in-field monitoring programs
- In-house quality assurance officer, qualified professional agronomists with extensive field and educational experience in the conduct of crop (field, horticultural, and greenhouse) and soil evaluations

Specialized facilities/equipment:

- Network of regional field facilities across Canada with confined seed storage
- Precision equipment for weighing, application of seed treatment/inoculation, planting and harvesting

Certifications:

- Standards Council of Canada recognized facility for the conduct of OECD GLP compliant studies

Current strategic partnerships/alliances:

- Projects are conducted on a contractual basis, most often involving non-disclosure agreements. ICMS does not take a royalty or ownership position in the technology being evaluated

Partnering/collaboration sought or offered:

- Projects to be conducted on a contractual basis

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E-mail: anderson@icms-inc.com
Website: www.icms.inc.com

Innovative Magnetic Resonance Imaging Systems (IMRIS) Inc.

<p>Parent Company:</p> <p>Company Founded:</p> <p>No. of Employees:</p> <p>Biotechnical activities since:</p> <p>Nature of business activities:</p> <p>Core technologies and expertise:</p> <p>Specialized facilities/equipment:</p> <p>Certifications:</p> <p>Important patents/licenses:</p> <p>Current strategic partnerships/alliances:</p>	<p>Same</p> <p>1997</p> <p>15</p> <p>1997</p> <ul style="list-style-type: none"> • Medical device company • Intra-operative MRI systems for use as an adjunct to neurosurgeons performing brain and spine surgeries • Build very high field stationary MRI systems for scientific research <ul style="list-style-type: none"> • MR technology for designing and building MRI equipment • Neurosurgical operating room table design and construction • RF shielding expertise <ul style="list-style-type: none"> • Demo system in use at the Foothills Hospital, Seaman Family MR Research Centre in Calgary, Alberta • Development test bed in Winnipeg, Manitoba • Two sites using VHF systems and another contract to supply a third system in Canada <ul style="list-style-type: none"> • ISO 9001, ISO 13485, EN 46001, CE Mark, FDA, and TPD approvals <ul style="list-style-type: none"> • Exclusive licensee to our technology, which is protected by a Government of Canada owned patent filed in Canada, the U.S. and European Union <ul style="list-style-type: none"> • Philips, Magnex Scientific, Oxford Magnet Technology, Brain LAB
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Toll-free: 1-888-304-0114
E-mail: john_saunders@imris.com
Website: www.imris.com

Kade Research Ltd.

Parent Company: Same
Company Founded: 1995
President: Dr. Clayton Campbell
E-mail: campbell@mb.sympatico.ca
No. of Employees: 9
Biotechnical activities since: 1995
Nature of business activities:
Core technologies and expertise:
Specialized facilities/equipment:
Important patents/licenses:
Current strategic partnerships/alliances:

- Plant breeding, contract R&D
- Genomics, food and nutrition, nutraceuticals
- PCR, tissue culture
- Variety license, Koban and Koto buckwheat
- University of Manitoba, Japan Buckwheat Millers Association, Grain Research Laboratory

Public Contact: Dr. Clayton Campbell
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Morden, Manitoba
Canada R6M 1Y5
Telephone: (204) 822-7235
Fax: (204) 822-5960
E-mail: kaderes@mb.sympatico.ca
Website: www.kaderesearch.com

Kane Biotech Inc.

Public Contact: Dr. Marcus Enns
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 Winnipeg, Manitoba
 Canada R3T 0P4
Telephone: (204) 487-2328
Fax: (204) 488-9823
E-mail: menns@genesysventure.com

Company Founded: 2001
No. of Employees: 1
Biotechnical activities since: 2001

Nature of business activities:
Core technologies, specialized skills and expertise:

- Developing products that prevent or disrupt biofilms.
- Research on genes that regulate biofilm formation to identify drugs that promote biofilm formation or dispersal
- Dr. Tony Romeo, chief scientific advisor and inventor, is a world-renowned expert in biofilm microbiology and global regulator gene technology
- Dr. Albert Friesen, chairman, is a successful entrepreneur who has started and managed several biopharmaceutical and biotechnology companies in North America
- Dr. Sri Madhyastha, research manager, has more than 20 years of research, teaching and management experience

Specialized capabilities:

- Biofilm science/technology is a relatively new technical discipline, which has emerged in response to the tremendous opportunities and significant costs resulting from damage caused by biofilm. Biofilms represent an interdisciplinary research area that focuses on understanding and modulating the combination of biological and chemical reactions as well as transport and interfacial transfer processes affecting microbial accumulations and activity at surfaces.
- Research over the last ten years has begun to reveal information about the molecular and genetic basis of biofilm development. We have come to understand many things about the unique biology of microbial biofilms through the use of microscopic, physical, chemical, and molecular techniques. There are many basic questions regarding the biology of biofilms that can now be answered. Our modern view of biofilm formation leads to the realization that their effective control will require a concerted effort to develop therapeutic agents that target the biofilm phenotype and community signaling-based agents that prevent the formation or promote the dispersal of biofilms.
- There are currently no anti-biofilm products on the market: however, recent advances in science and technology provide an exceptional opportunity for Kane Biotech to initiate the development of products based on molecular genetics of biofilm formation to combat biofilm problems. These are very specific, highly effective, and environmentally safe.

Important Patents/licenses:

- 4 U.S. patents and 4 U.S. patents pending.
- Exclusive license from UNTHSC to manufacture, use, license, sell, market, and promote any products resulting from the intellectual property

Partnering/collaboration sought or offered:

- Kane Biotech will license its products to biotechnology, biopharmaceutical and chemical companies for manufacturing, distribution and/or marketing

Lombard Life Sciences

No. of Employees:

11

Nature of
business activities:

- Venture Capital
- Manager of the Western Life Sciences Venture Fund LP

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Canada R3B 3C5
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E-Mail: dback@lombardlifesciences.com
Website: www.lombardlifesciences.com

Manitoba Hydro

Company Founded: 1951
No. of Employees: 4500
Biotechnical activities since: 1999

Nature of business activities:

Core technologies and expertise:

Specialized facilities/equipment:

- Electric power generation, transmission and distribution
- Natural gas transmission and distribution
- Related energy services
- Manitoba Hydro offers technical expertise in the biotech areas of: agri-food industries; industrial processes; environmental issues
- Advanced lighting technologies for plant production
- Advanced drying technologies for product processing
- Advanced uninterruptible power supply and power quality technologies

Public Contact: Paul Chard
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1565 Wilson Place
Winnipeg, Manitoba
Canada R3B 1Y6
Telephone: (204) 947-4100
Fax: (204) 478-5191
E-mail: publicaffairs@hydro.mb.ca
Website: www.hydro.mb.ca

Medicure Inc.

Company Founded:

1997

President:

Dr. Albert Friesen

E-mail:

afriesen@genesysventure.com

No. of Employees:

19

Biotechnical activities since:

1998

Nature of business activities:

- Development of cardiovascular therapeutics
- Currently in Phase II for its lead product MC-1 (improves the heart's condition after serious injury by ischemia and ischemic reperfusion injury)

Core technologies and expertise:

- Develop treatments for unmet cardiovascular needs
- Albert D. Friesen, President and CEO, holds a PhD in protein chemistry and has been instrumental in founding several health industry companies. His efforts have lead to the establishment of several cGMP production facilities and initiation of numerous pharmaceutical candidates
- Dr. Naranjan S. Dhalla, co-founder and chief scientific officer, is the principal inventor of Medicure's lead technology
- Dr. Karl-Gummar Hiding, vice-president/clinical development, is responsible for the design and management of clinical studies with Medicure's lead component, MC-1, and for the clinical aspects of other business development and research projects. His drug development experience spans 30 years and includes basic pharmacology research and pre-clinical research through clinical phases I, II, III and market approval of new chemical entities

Specialized facilities/equipment:

- Current phase II clinical trials are managed by the Duke Clinical Research Institute (DCRI), Durham, North Carolina. DCRI is a recognized leader in cardiovascular clinical trials, clinical drug research and the evaluation of novel therapeutics under the direction of Principal Investigator, Dr. James E. Tchong MD, F.A.C.C.

Important patents/licenses:

- Three issued U.S. patents
- One U.S. patent allowed for uses of MC-1 and various compositions
- Four pending applications

Partnering/collaboration sought or offered:

- Medicure is positioning itself as a provider of new small molecule drug candidates for large pharmaceutical companies focused on the cardiovascular market

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Toll-free: 1-888-435-2220
E-mail: info@medicureinc.com
Website: www.medicureinc.com

Momentum Healthware Inc.

Public Contact: Gord Blaine
Address: 308-131 Provencher Boulevard
Winnipeg, Manitoba
Canada R2H 0G2
Telephone: (204) 231-3836
E-mail: info@momentumhealthware.com
Website: www.momentumhealthware.com

Company Founded:

1995

President:

Chuck LaFleche

E-mail:

chuck.lafleche@
momentumhealthware.com

No. of Employees:

75

**Nature of
business activities:**

- Provision of software and services to the health care industry

**Core technologies
and expertise:**

- Financial Systems
- Dietary Management Systems
- MDS Assessment Systems
- Long Term Care Clinical Systems
- Acute Care Management Systems

**Important
patents/licenses:**

- interRAI

**Current strategic
partnerships/alliances:**

- Sysco Inc. (largest food supplier in the U.S.) – exclusive marketing agreement for our Dietary Management System
- Virtual Care Provider (Milwaukee, Wisconsin) – provider of hosting services to U.S. long term care market

**Partnering/collaboration
sought or offered:**

- Further managed operating/hosted sites
- U.S. health care billing partners

Monsanto Canada Inc.

Parent Company:
No. of Employees:

Same
70

Nature of
business activities:
Core technologies
and expertise:

Partnering/collaboration
sought or offered:

- Agricultural technology
- Crop protection chemistry
- Seed and biotechnology traits
- Yes

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Fax: (204) 488-9599
E-mail: trish.l.jordan@monsanto.com
Website: www.monsanto.com

Monteris Medical Inc. (formerly AutoLITT Inc.)

Public Contact: Tom McGoldrick
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Winnipeg, Manitoba
Canada R3B 3C5
Telephone: (204) 943-0066
Fax: (204) 943-7646
E-Mail: jhodgert@lombardlifesciences.com
Website: www.lombardlifesciences.com

Nature of
business activities:

- Medical device development
- Core technologies, specialized skills and expertise
- Laser induced thermal therapy

Specialized
capabilities:

- Product development, therapeutics, equipment for bioinformatics

Important
Patents/licenses:

- Issued patent covering core technology
- Provisional patent covering laser probe

Current strategic
partnerships or alliances

- Lombard Life Sciences
- Western Life Sciences Venture Fund LP

Parent Company:	Same	Public Contact: Joel Palmer Address: 435 Ellice Avenue Winnipeg, Manitoba Canada R3B 1Y6 Telephone: (204) 943-1724 Fax: (204) 942-3687 Website: www.novadaqtech.com
Company Founded:	2000	
Director:	Dr. John Docherty	
E-mail:	jdocherty@novadaq.ca	
No. of Employees:	13	
Branch Offices:	Winnipeg, Manitoba Toronto, Ontario	
Biotechnical activities since:	2000	
Nature of business activities:	<ul style="list-style-type: none"> • Vascular imaging device for use during cardiac surgeries (with potential for use in other related areas) • Device for the diagnosis and treatment of age related macular degeneration (AMD) 	
Core technologies and expertise:	<ul style="list-style-type: none"> • Device development • Optical physics 	
Specialized facilities/equipment:	<ul style="list-style-type: none"> • Certifications: ISO 9001, EN 46001, ISO 13485 	
Important patents/licenses:	<ul style="list-style-type: none"> • License from National Research Council of Canada for vascular imaging device • License from John Hopkins University (Baltimore, Maryland) for device for diagnosis and treatment of AMD 	
Current strategic partnerships/alliances:	<ul style="list-style-type: none"> • National Research Council Canada • John Hopkins University, Baltimore, Maryland • ATS Automation Tooling Systems, Cambridge, Ontario 	

Nutratch Inc.

Public Contact: John Hare
 Address: 6-62 Scurfield Boulevard
 Winnipeg, Manitoba
 Canada R3Y 1M5
 Telephone: (204) 487-0974
 Fax: (204) 488-0051
 E-mail: info@nutratchglobal.com

Parent Company: Same
 Company Founded: 1999
 President: John Mottola
 E-mail: jmottola@nutratchglobal.com

No. of Employees: 9

Biotechnical activities since: 1999

- Nature of business activities:
- Nutratch has developed a series of antibody products that provide an effective, inexpensive treatment for enteric disease in animals
 - The second product group includes several Salmonella strains, which will prove important to clinicians, microbiologists, those in the food industry and those responsible for the control of communicable disease
 - The third product group will be developed to prevent disease caused by EHEC, including E.coli O157:H7
 - Intend to pursue the development of additional products resulting from its programs in target discovery and product design for passive antibody products
- Core technologies and expertise:
- Nutratch identifies and evaluates targets by using molecular genetics, protein biochemistry and animal disease models and designs product candidates to react with these targets that interfere with the disease process
- Current strategic partnerships/alliances:
- Distribution alliances have been developed in the European Union for the marketing of the products for the animal health market
- Partnering/collaboration sought or offered:
- Nutratch is developing and seeking similar relationships in other global markets, including such markets as South America and Asia

Osorno Enterprises Inc.

Company Founded:

2000

Nature of
business activities:
Core technologies,
specialized skills
and expertise:

Specialized
capabilities:

Partnering/collaboration
sought or offered:

- All types of bio-environmental systems and services
- Wastewater treatment (municipal, industrial, high-strength)
- Biofilter
- Composting automation
- Osorno is a process oriented company with key strength in bio-environmental technologies; however, components critical for process performance are also part of the product and service spectrum available through Osorno
- The bioenvironmental technologies are:
 - (1) advanced water treatment in municipal or industrial applications, including very high strength wastewater, and including “packaged” wastewater treatment plants for small communities, First Nations, resorts, lakeshore developments
 - (2) biological treatment of exhaust gases containing organic pollutants or smell
 - (3) nutrient recycling of solid or semi-solid organic waste to increase the fertility of stressed soil
- Distributors wanted in Latin America

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Canada R3R 0C2
Telephone: (204) 488-1538
Fax: (204) 488-1566
E-Mail: postmaster@osorno-corp.com
Website: www.osorno-corp.com

PharmEng Technology Inc.

Address: 4-703 Corydon Avenue
Winnipeg, Manitoba
Canada R3M 0W4

Telephone: (204) 927-1250

Fax: (204) 452-2422

Website: www.pharmeng.com

Parent Company:	PharmEng Technology Inc. – Markham, Ontario
Company Founded:	2000
Director:	Ben Lee
No. of Employees:	10
Branch Offices:	U.S. China
Nature of business activities:	<ul style="list-style-type: none">• Pharmaceutical and biotechnology consulting
Core technologies and expertise:	<ul style="list-style-type: none">• Validation• Regulatory compliance• Training• Engineering• Commissioning
Specialized facilities/equipment:	<ul style="list-style-type: none">• Calibrated instrumentation

RW Packaging Ltd.

Parent Company: Same
Company Founded: 1919
No. of Employees: 67

Nature of business activities:

Specialized capabilities:

- Contract manufacturer of over-the-counter (OTC) drug products (wets and dries), liquids and powders
- Range of products includes peroxide, alcohol (iso and ether), epsom salts, gripewater, mineral oil, distilled water, etc.
- RW Packaging is one of Canada's leading manufacturers of over-the-counter pharmaceutical products. RW Packaging blends and packages liquid and powder private brand consumer products for major retailers and national brand marketers across North America. RW Packaging is cGMP and ISO 9001/02 certified.
- Health Care Products - OTC drugs. Over 40 items are produced in this category including rubbing alcohol, calamine lotion, epsom salts and hydrogen peroxide. This category is strictly regulated by the government through the Therapeutic Products Program to ensure compliance of product standards. This has been a growth category for Private Label and RW Packaging is a key supplier to the marketplace, providing quality products and expertise to the trade.
- Household Products - RW Packaging products are easily recognized in this category, which includes items such as bleach, fabric softener and ammonia. With a state-of-the-art manufacturing facility in Edmonton, RW Packaging produces bottles, formulates and packages products for major Canadian retailers.
- Hardware Products - As one of the largest purchasers of high-grade petroleum distillates, RW Packaging produces charcoal lighter fluid for distribution throughout North America. Manufacturing integration in this category places RW Packaging in a competitive market position.
- Automotive Products - windshield washer fluid and antifreeze are volume market segments which sustain production on a seasonal basis. These, along with other automotive functional fluids, provide RW Packaging with a presence in the automotive trade.

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E-mail: rwp@rwpackaging.com
Website: www.rwpackaging.com

SmartPark – University of Manitoba

No. of Employees:

3

Nature of business activities:

- Research and technology park designed to promote research and development collaboration between the University of Manitoba and industry
- SmartPark will enrich the University’s research and education programs, provide employment opportunities for students, improve the University’s ability to attract and retain highly qualified personnel, and highlight the University’s role in fostering economic development and innovation

Core technologies, specialized skills and expertise:

- Specialized skills in the areas of advanced materials and manufacturing, agricultural and pharmaceutical biotechnology, information and telecommunications, and resource-based value-added products and processing
- Expertise will assist Manitoba in growing, attracting and retaining knowledge-based companies
- Proximity to the University of Manitoba allows for fast access to our research expertise, facilities and equipment, as well as our highly skilled students

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 Canada R3B 1H4
Telephone: (204) 989-0004
Fax: (204) 943-7524
E-Mail: winnipeg@tdvglobal.com
Website: www.tdvglobal.com

Company Founded: 2001
No. of Employees: 7

Nature of business activities:

- TDV Global Inc. is a strategic management consulting company with a clear vision and global foundation of experience to meet the rapidly evolving challenges of the health and biotechnology environment. We are a leader in two high priority sectors: health and security. We specialize in facilitating partnerships among private, public and academic sectors to accelerate the commercialization continuum

Core technologies, specialized skills and expertise:

- Change management – we identify strategies to address areas impacted by change and we provide skills to empower your leaders and employees to solve current and future situations more effectively
- Strategic and business planning – we guide ‘business-driven’ planning solutions that encompass process and technology, as well as people and organizational change
- Human resource management – we map out and implement the required structures and systems to achieve a healthy, effective organization as well as establish initiatives to improve performance and productivity in human resources
- Knowledge management – we take a fully integrated approach to assisting your organization in exploiting information and knowledge to your best advantage
- Partnership and business development – we help your organization focus its business efforts and solve problems in key operational areas to establish stable, value-added relationships

Current strategic partnerships or alliances:

- Health Canada
- International Centre for Infectious Diseases (ICID)
- Global Health Security Action Group (GHSAG)
- Canadian Food Inspection Agency (CFIA)
- Canadian Public Health Laboratory Network (CPHLN)
- Canadian Viral Hepatitis Network (CVHN)

Partnering/collaboration sought or offered:

- We seek collaborations that allow us to add value through the development and implementation of integrated business solutions and through restructuring and program delivery initiatives. We add value by providing executive-level, diagnostic, conceptual and analytical expertise to help organizations redesign and revitalize strategic approaches, improve accountability and decision-making, and achieve growth objectives

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 Winnipeg, Manitoba
 Canada R3T 6A8
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Fax: (204) 488-1564
E-mail: info@trlabs.ca
Website: www.trlabs.ca

Company Founded: 1986
No. of Employees: 224

Nature of business activities:

- Canada's largest information and communications technology (ICT) research consortium
- Creates innovative technologies and trains students to enhance ICT expertise and improve Canada's global competitiveness
- Research activities focus on five strategic areas: data networking, network access, network systems, photonics, and wireless communications
- 56 partner sponsors represent a unique synergy of industry, government, and university

Core technologies, specialized skills and expertise:

- Data compression, visualization (data), mobile agents (intelligent search tools), transmission networks for data, mobile sensors
- Grids and public computing networks, 3G and 4G networks, network modeling and performance analysis, medical networking, sign processing and analysis

Specialized capabilities:

- TRLabs is Canada's leading research consortium in information and communications technology (ICT). Based on industry-university-government collaboration, TRLabs operates five laboratories across Western Canada where university professors, graduate and undergraduate students and industry researchers work together to conduct pre-competitive, applied research. The focus of TRLabs Winnipeg is Data Networking research. The collaborative research environment at TRLabs provides a unique training experience for students and continually generates new knowledge and technologies to advance the ICT industry in Manitoba

Important Patents/licenses:

- TRLabs has 132 patents approved or pending in its seven research thrusts, several of which have applicability in the application of ICT to the health care industry

Current strategic partnerships or alliances:

- TRLabs has collaborative research agreements with the St. Boniface General Hospital Research Centre in Winnipeg, Manitoba, the Manitoba Institute of Child Health in Winnipeg, Manitoba, and Saskatoon District Health in Saskatoon, Saskatchewan
- TRLabs university sponsors include the universities of Alberta, Calgary, Saskatchewan, Regina and Manitoba
- TRLabs also has industry sponsors that include: telecom carriers, multinational equipment manufacturers, telecommunications service providers, and emerging western Canadian ICT businesses

Partnering/collaboration sought or offered:

- TRLabs welcomes consideration of new partnerships involving the application of ICT technology to the health care and biotechnology fields; TRLabs is able to provide support, people, skills and facilities to further ICT opportunities in these fields

Viventia Biotech Inc.

Parent Company: Same
Company Founded: 1984
No. of Employees: 60
Biotechnical activities since: 1991
Nature of business activities:

Core technologies and expertise:

Specialized facilities/equipment:

Important patents/licenses:
Partnering/collaboration sought or offered:

- Develop innovative therapeutics based upon the human immune response to cancer
- Through our Hybridomics™ discovery platform and Immunomine™ screening technology, we are focused on developing “Totally Human” monoclonal antibodies either as targeted therapeutics, Armed Antibodies™, or as direct treatments to fight multiple forms of cancer
- Hybridomics™
- Immunomine™
- Armed Antibodies™
- Clinical Manufacturing
- Research
- Product and process development
- CGMP
- Clinical manufacturing using mammalian and microbial expression systems
- Patent on Antibodies
- Yes

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Telephone: (204) 478-1023
Fax: (204) 452-7721
E-mail: dloparco@viventia.com
Website: www.viventia.com



Research Institution Profiles

companies

research institutions

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companies

56 research institutions

Asthma/Chronic Obstructive Pulmonary Disease Research Centre

Public Contact: Dr. Andrew Halayko
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 770 Bannatyne Avenue
 Winnipeg, Manitoba
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Telephone: (204) 787-2062
Fax: (204) 787-1220
E-mail: ahalayk@cc.umanitoba.ca
Website: www.scrs.umanitoba.ca/
 Physiology/asthmacopd

Parent Company: Asthma/COPD
 Research Centre

Company Founded: 1999

No. of Employees: 7

**Biotechnical
 activities since:** 1999

**Nature of
 business activities:**

- Biomedical research - asthma and chronic obstructive pulmonary disease (COPD)
- Preparation of pulmonary fibroblast and smooth muscle cell lines from human and animal sources
- Identify biochemical mechanisms for altered cell function and foster development of potential new therapeutic targets

**Core technologies
 and expertise:**

- Mechanical strain devices, in-vitro cell systems
- Microscopic imaging of cells and tissue
- Tissue cultures; establishing cell lines from mammalian lungs (including human)
- Protein expression and analyses
- Preparation and application of “artificial” genes to assess cell function

**Specialized
 facilities/equipment:**

- Oval laser scanning microscope
- Fluorescent digital microscope imaging (live cell/tissue)
- Cell culture (preparation and storage)
- Luminometer
- Mechanical strain device for in-vitro cell systems

**Current strategic
 partnerships or alliances:**

- Manitoba Institute for Child Health (Children’s Hospital Foundation), Wyeth Research (Cambridge, MA, U.S.)

**Partnering/collaboration
 sought or offered:**

- Offered: pharmaceutical industry
- Investigation of mechanisms of action of drugs for asthma and COPD on airway smooth muscle function

Bioremediation Group (Department of Microbiology)

Parent Company:

Director:

E-mail:

University of Manitoba

Dr. Ivan Oresnik

oresniki@cc.umanitoba.ca

Address: 4140 Buller Building
Department of Microbiology
University of Manitoba
Winnipeg, Manitoba
Canada R3T 2N2

Telephone: (204) 474-8320

Fax: (204) 474-7603

Core technologies
and expertise:

Specialized
facilities/equipment:

- Microbial genetics and molecular biology
- FPLC

Brandon Research Centre

Public Contact: Brenda Eamer
Address: P.O. Box 1000A, RR#3
Brandon, Manitoba
Canada R7A 5Y3
Telephone: (204) 726-7650
Fax: (204) 728-3858

Parent Company: Agriculture and
Agri-Food Canada

Director: Dr. Reg Kucey

E-mail: rkucey@em.agr.ca

No. of Employees: 100

**Nature of
business activities:**

- Agronomy research
- Manure management
- Barley breeding
- Beef production research

**Core technologies
and expertise:**

- 19 research scientists in various disciplines

**Specialized
facilities/equipment:**

- Greenhouses
- Growth cabinets
- Double haploid/tissue culture lab for plants
- Field sites
- Radiotracer laboratory
- Pastures and corrals for handling cattle

**Current strategic
partnerships/alliances:**

- Over 60 collaborative projects underway

**Partnering/collaboration
sought or offered:**

- Research in environmental health, food safety, and sustainable production

CancerCare Manitoba

Parent Company:
Company Founded:
President & CEO:
No. of Employees:

Same
1957
Dr. Dhali Dhaliwal
483

Branch Offices:

Four sites in Winnipeg, Manitoba
Community Cancer Programs Network (14 centres across the province)

Biotechnical activities since:

Division of Medical Physics since 1950
Clinical Investigations Department since 1972

Nature of business activities:

- Cancer prevention, detection, care, research and education throughout Manitoba
- Radiation protection consultations and measurement services for ionizing and non-ionizing radiation. The consultations include those required to support licensing applications to the Canadian Nuclear Safety Commission for the purchase and use of radioactive material. Technical services include the use of measuring equipment for the detection and quantification of radiation, the calibration of ionizing radiation survey meters, wipe testing and wipe test analysis.
- Radiation protection training including customized course preparation and delivery
- Design and implementation of radiation protection program
- The Clinical Investigations Office provides the infrastructure for most of the clinical research conducted at CancerCare Manitoba.
- Medical Devices: design, prototype and manufacture of medical related devices and equipment. Design and manufacture of custom clinical and physics testing equipment not commercially available for health care facilities.

Core technologies and expertise:

- Services in radiation therapy, chemotherapy, screening programs, provincial cancer registry, epidemiology, nursing and social services.
- Pediatric, medical, surgical, neurological, urological, bone marrow transplantation/acute leukemia and psychiatric multidisciplinary oncology clinics.
- Large Medical Physics Department with technological and research development capabilities, primarily in the development of new brachytherapy imaging methodology.
- Clinical Investigation Office conducts clinical trials with NSABP, NCIC-CTG, COG, RTOG as well as many private industry funded initiatives.
- Radiation Protection: Radiation measurements, radiation meter calibrations, consultations re: licensing and the design and operation of radiation protection programs. Competent in the preparation of licence applications to the Canadian Nuclear Safety Commission. Radiation safety course preparation and delivery, radiation protection program design and implementation. Also has shielding design expertise for ionizing irradiation facilities.
- Medical Devices: design, machining, welding, and light fabrication.

Specialized facilities/equipment:

- Radiation measuring equipment for all energies of the electromagnetic spectrum • Ionizing radiation measuring equipment for x-rays, gamma radiation, alpha, beta and neutron radiation
- Multi-channel analysis capability for Isotope identification • Medical Devices: modern machine shop with CNC milling equipment and CAD/CAM design capabilities

Certifications:

- Certified (by Canadian Nuclear Safety Commission) as a radiation meter calibration facility
- Certified (by Canadian Nuclear Safety Commission) to perform wipe tests and analyze wipe tests for radioactive sources, as required by Canadian Nuclear Safety Commission
- Staff- Journeyman machinists, Journeyman Tool and Die

Current strategic partnerships/alliances:

- University of Manitoba • CancerCare Manitoba Foundation • Manitoba Health
- Province of Manitoba • Misericordia Hospital • St. Boniface Hospital • Victoria Hospital

Partnering/collaboration sought or offered:

- Opportunities exist for collaboration with clinical investigators on the treatment of cancer and the assessment of newer drugs. Studies related to nonmalignant hematologic disorders. Research studies involving cancer prevention, symptom control, causes of cancer, long term effects of cancer treatment and biology of cancer cells.

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Fax: (204) 786-0183
E-mail: kathi.neal@cancercare.mb.ca
Website: www.cancercare.mb.ca

companies

research institutions

Centre for the Investigation of Genetic Disease

Public Contact: Dr. Barbara Triggs-Raine
Address: 770 Bannatyne Avenue
 Dept Biochemistry and
 Medical Genetics
 Winnipeg, Manitoba
 Canada R3E 0W3
Telephone: (204) 789-3218
Fax: (204) 789-3900
E-Mail: traine@ms.umanitoba.ca

Company Founded: 2001
No. of Employees: 3

Nature of business activities:

- Identification and characterization of the basis for genetic diseases with emphasis on the development of diagnostic and new therapeutic products

Core technologies, specialized skills and expertise:

- Genetic epidemiology, linkage analysis, genomic analysis, bioinformatics, mutation detection

Specialized capabilities:

- Identification and full characterization of disease genes. Our centre has expertise from basic and clinical scientists making it possible to return diagnostics and therapies to patients

Current strategic partnerships or alliances:

- Manitoba Institute for Child Health
- Canadian Genetic Diseases Network

Partnering/collaborations sought or offered:

- Identification of disease genes in families

Cereal Research Centre

Parent Company:

Agriculture and
Agri-Food Canada

Director:

Dr. Jim Bole

E-mail:

jbole@em.agr.ca

No. of Employees:

250

**Nature of
business activities:**

**Core technologies
and expertise:**

**Specialized
facilities/equipment:**

**Partnering/collaboration
sought or offered:**

- Agricultural Research: plant breeding and biotechnology
- New cereal and ornamental varieties, genetic marker development, bio-control products, novel products from barley, matrix attachment regions, insect control methods, new methods for quality testing and genomic research for fusarium head blight and leaf rust resistance
- Expertise in molecular breeding, molecular mapping, gene cloning, molecular pathology, proteomics, transformation, functional and structural genomics, gene expression analysis
- Tissue culture cabinets and laboratories; sequencing lab with automated sequences; proteomics lab; robotics for arraying, colony picking, liquid handling; microarray scanners
- Sought: Collaborative research partners, licensees for technologies and varieties
- Offered: Varieties in wheat, oats, peas, flax and ornamental plants; DNA markers linked to selected characteristics; molecular mapping, gene cloning, functional genomics

Public Contact: Darren Ramlal
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Winnipeg, Manitoba
Canada R3T 2M9
Telephone: (204) 983-5533
Fax: (204) 984-6333
E-mail: dramlal@em.agr.ca
Website: www.agr.gc.ca/science/winnipeg

Division of Neurovirology and Neurodegenerative Disorders (DNND)

Public Contact: Dr. Paul Fernyhough
Address: R4046-351 Tache Avenue
 Winnipeg, Manitoba
 R2H 2A6 Canada
Telephone: (204) 235-3938
Fax: (204) 237-4092
E-Mail: dnnd@sbrc.ca
Website: www.sbrc.ca/dnnd

Company Founded: 2001
No. of Employees: 35

Nature of business activities:
Core technologies, specialized skills and expertise:

- Biotechnology research
- Neurodegenerative disorders including: Alzheimer's disease, ischemic and hemorrhagic stroke, HIU-1 dementia, Multiple Sclerosis, traumatic brain injury and aging-related sleep studies

Specialized capabilities:

- Biotechnology research

Current strategic partnerships or alliances:

- University of Manitoba, St. Boniface Research Foundation, National Institutes of Health, Manitoba Health Research Foundation, Canadian Institutes of Health Research, Alzheimer's Society of Canada, Canadian Foundation for Innovation, Western Life Sciences, AstraZeneca, PerkinElmer, University of Pennsylvania, University of Kentucky, University of Toronto

Genomic Centre for Cancer Research and Diagnosis

<p>Parent Company:</p> <p>Company Founded:</p> <p>President:</p> <p>E-mail:</p> <p>No. of Employees:</p> <p>Branch Offices:</p> <p>Biotechnical activities since:</p> <p>Nature of business activities:</p> <p>Core technologies and expertise:</p> <p>Specialized facilities/equipment:</p> <p>Important patents/licenses:</p> <p>Current strategic partnerships/alliances:</p>	<p>University of Manitoba, CancerCare Manitoba, Manitoba Institute of Cell Biology</p> <p>1999</p> <p>Dr. Jim Davie davie@cc.umanitoba.ca</p> <p>3</p> <p>None</p> <p>1999</p> <ul style="list-style-type: none"> • Cytogenetic Microscopy: Bright field and fluorescent imaging to support basic and translational research in cancer research as well as other genetic diseases • Microscopic and software development for the early detection and screening of genetic diseases <ul style="list-style-type: none"> • Cytogenetic Microscopy: Fluorescent In Situ Hybridization (FISH, mRNA FISH, Spectral FISH), Spectral Karyotyping (SKY), G-banding, Comparative Genomic Hybridization (CGH), quantitative immunohistochemical staining and analysis, histopathology, laser chromosome microdissection • Support human samples as well as mouse models and other species <ul style="list-style-type: none"> • Nine networked computer driven Zeiss fluorescent microscopes and additional analysis stations • The microscopes support imaging and analysis applications for the technologies described above <ul style="list-style-type: none"> • Applied Spectral Imaging Inc. (Israel/USA), Manitoba Institute of Cell Biology, and the University of Manitoba – Spectral FISH as a rapid early detection technology • MetaSystems Group Inc. (Germany/USA), Manitoba Institute of Cell Biology, and the University of Manitoba – Mouse Karyotype classifier <ul style="list-style-type: none"> • Industrial Funding Partners: Carl Zeiss Canada Ltd., Applied Spectral Imaging Inc., MetaSystems Group Inc., Photonic Instruments Inc., Empix Imaging Inc. • Industrial Research Partners: Sarstedt Inc., Cedarlane Laboratories Inc., Invitrogen Canada Inc., Kindler GmbH & Co., VWR Canlab Scientific Research Partners, National Institutes of Health/National Cancer Institute (USA), Karolinska Institute (Sweden), Kanizawa University (Japan), University of Chiang Mai (Thailand), European Lymphoma Group, Cross Cancer Institute/University of Alberta • Trading Partners: Department of Biochemistry and Medical Genetics/University of Manitoba, Fort Garry School Division No.5/Winnipeg, Canadian Association of Women in Science, Gymnasium Kreuzgasse (Germany). Part of a \$1.8 million, 6 year training initiative for Canadian and exchange students, post-doctoral, medical, high school and technical trainees sponsored by Canadian Institute of Health Research
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Fax: (204) 787-2190
E-mail: kuschakt@cc.umanitoba.ca
Website: www.umanitoba.ca/institutes/
manitoba_institute_cell_biology/
GCCRD/Index3.htm

Health Sciences Centre Research

Public Contact: Gloria Dutchuk
Address: MS7 - 820 Sherbrook Street
Winnipeg, Manitoba
Canada R3A 1R9
Telephone: (204) 787-4175
Fax: (204) 787-4547
E-Mail: gdutchuk@hsc.mb.ca

Company Founded: 1981
No. of Employees: 200

Nature of business activities:

- The Health Sciences Centre Foundation was established in 1981 to improve health care in Manitoba by supporting medical research of the highest quality by investigators affiliated with the Health Sciences Centre (HSC) and the University of Manitoba, and to support the HSC in its efforts to achieve clinical excellence
- Since 1981, the foundation has invested over \$16 million dollars in support of more than 175 leading-edge researchers and health care investigators

Core technologies, specialized skills and expertise:

- HSC's world-class research has contributed to new knowledge in many areas including:
 - cardiovascular disease
 - respiratory diseases
 - disorders of reproduction and pregnancy,
 - renal failure
 - allergies
 - spinal cord injury
 - organ transplantation
 - diabetes and endocrine disorders,
 - digestive diseases
 - cancer
 - arthritis
- The achievements of our researchers have been a key element in the growth of Manitoba's reputation as a major centre for biomedical research

Institute of Cardiovascular Sciences

Company Founded: 1987
No. of Employees: 80

Nature of business activities:

Core technologies, specialized skills and expertise:

Specialized capabilities:

Current strategic partnerships or alliances:

Partnering/collaboration sought or offered:

- Cardiovascular Research
- Drug discovery for the treatment of heart failure, ischemic heart disease, and diabetes
- Cardiovascular research
- Medicare Inc.
- Industries interested in the development of cardiovascular drugs

Public Contact: Dr. Naranjan Dhalla
Address: 351 Tache Avenue
St. Boniface General Hospital
Research Centre
Institute of Cardiovascular Sciences
Winnipeg, Manitoba
Canada R2H 2A6
Telephone: (204) 235-3421
Fax: (204) 233-6723

Lipid, LipoProtein and Atherosclerosis Group

Parent Company:
Company Founded:
Director:
No. of Employees:

University of Manitoba
1992
Dr. David Mymin
20

Nature of
business activities:
Core technologies
and expertise:

- Research in lipids and lipoproteins pertaining to human disease
- Cutting edge techniques in the determination of various lipoproteins in plasma of hyperlipidemic patients

Specialized
facilities/equipment:

- GLC
- HPLC
- Ultracentrifugation
- Other molecular biology techniques

Current strategic
partnerships/alliances:
Partnering/collaboration
sought or offered:

- University of Manitoba – Venture Box
- To start up “First Choice Health Products”

Public Contact: Dr. Patrick Choy
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Winnipeg, Manitoba
Canada R3E 0W3
Telephone: (204) 789-3375
Fax: (204) 789-3942
E-mail: pchoy@ms.umanitoba.ca
Website: www.umanitoba.ca/academic/
faculties/medicine/units/atherosclerosis

Mammalian Functional Genomics Centre

Company Founded: 1999
No. of Employees: 5

Nature of business activities:

- Large-scale development of a library of mouse embryonic stem cells (each with a defined mutation in an exposed cellular gene)
- ES cells can be used to derive transgenic “knock-out” mice for the given target gene

Core technologies and expertise:

- Functional genomics
- Mouse models of human disease
- Embryonic stem cells
- Transgenic technologies
- Bioinformatics

Specialized facilities/equipment:

- High throughput genomics
- Transgenic injection units
- ES cell repository

Current strategic partnerships/alliances:

- Canadian Institute of Health Research
- Canadian Genetic Diseases Network
- NCBI (USA)
- International Mouse Metagenesis Consortium

Public Contact: Dr. Geoff Hicks
Address: ON5029, 675 McDermot Avenue
Winnipeg, Manitoba
Canada R3E 0V9
Telephone: (204) 787-2133
Fax: (204) 787-2190
E-mail: hicksagg@cc.umanitoba.ca
Website: www.escells.ca

Manitoba Centre for Bioinformatics

Parent Company:
Company Founded:
Director:
E-mail:
Biotechnical activities since:
Nature of business activities:
Core technologies and expertise:
Specialized facilities/equipment:
Current strategic partnerships/alliances:
Partnering/collaboration sought or offered:

University of Manitoba
2002
Dr. Brian Fristensky
frist@cc.umanitoba.ca

2002

- Bioinformatics consulting
- Software development
- Analysis of genomic data
- Computational biology
- Molecular sequence analysis
- Biological database management
- Statistical analysis and experimental design
- Sun/Unix server platform; large installed base of software for bioinformatics, statistics, and database management
- Genome Prairie Bioinformatics
- Industrial, government, and academic research

Public Contact: Dr. John Brewster
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Winnipeg, Manitoba
Canada R3T 2N2
Telephone: (204) 474-6724
Fax: (204) 474-7602
E-mail: john_brewster@umanitoba.ca
Website: www.umanitoba.ca/institutes/iims

Manitoba Centre for Health Policy

Company Founded: 1991
No. of Employees: 60

Public Contact: Dr. Patricia Martens
Address: Department of Community Health Sciences,
Faculty of Medicine,
University of Manitoba
Room 408 - 727 McDermot Avenue
Winnipeg, Manitoba
Canada R3E 3P5
Telephone: (204) 789-3819
Fax: (204) 789-3910
Website: www.umanitoba.ca/centres/mchp/

Nature of business activities:

- Research on the health of Manitobans
- Examine patterns of illness in the population

Core technologies, specialized skills and expertise:

- MCHP has developed a Population Health Information System (POPULIS) that relates the health of the population to its use of health care services - hospitals, doctors, nursing homes, prescription drugs and economic and social factors
- Analysis can be provided at different geographic levels - Regional Health Authorities, municipalities or hospital service areas

Specialized capabilities:

- Research on the health of Manitobans. Examine patterns of illness in the population, study how people use health care services, and develop an understanding of the broader determinants of health, i.e., income, education, employment and social circumstance.

Current strategic partnerships or alliances:

- Manitoba Health, Regional Health Authorities, Manitoba Advanced Education and Training, Manitoba Family Services and Housing

Manitoba Centre for Proteomics

Public Contact: Dr. John Wilkins
Address: 805, JBRC, 715 McDermot Avenue
 Winnipeg, Manitoba
 Canada R3E 3P4
Telephone: (204) 789-3835
Fax: (204) 789-3987
E-mail: jwilkin@cc.umanitoba.ca

Parent Company:	University of Manitoba
Company Founded:	1980
No. of Employees:	10
Biotechnical activities since:	1980
Nature of business activities:	<ul style="list-style-type: none"> • Analysis of human inflammatory diseases using proteomic approaches • Biomarker identification • Development of software and instrumentation for analysis in above systems
Core technologies and expertise:	<ul style="list-style-type: none"> • Cell culture, protein interactions, proteomics, monoclonal antibodies, immunochemistry, immunoprecipitation, integrin purification and functional assessment, animal models of transplantation
Specialized facilities/equipment:	<ul style="list-style-type: none"> • Hybridoma generation and growth, mass spectrometers, Linear TOF (CIPHERGEN SELDI), Orthogonal QqTOF (PESCIEX) with electrospray, MALDI and nanospray services • ULc system for online data acquisition • Biacore 2000 surface plasma resonance spectrometer, laser capture microscopy
Current strategic partnerships/alliances:	<ul style="list-style-type: none"> • Applied Biosystems • CIPHERGEN Biosystems Inc. • Chemicon Intl. Corp.
Partnering/collaboration sought or offered:	<ul style="list-style-type: none"> • Tissue analysis (immunochemistry, histochemistry) • Sample analysis mass spectroscopy (ms or ms/ms) • Protein ID bioinformatics • Beta site for proteomic instrumentation or new reagents/systems

Manitoba Institute of Cell Biology

Parent Company:

Jointly affiliated with the University of Manitoba and CancerCare Manitoba

Company Founded:

1969

Director:

Dr. Jim Davie

E-mail:

davie@cc.umanitoba.ca

No. of Employees:

110

Nature of business activities:

- Basic and translational research in biology and its relation to health (emphasis on cancer and related diseases) • Study of molecular origins of cancer • Study the role of signal transduction pathways in regulating cell proliferation • Study of cell death • Study of gene expression and platelet function • Study of development of markers of risk of developing invasive breast cancer • Study of neuronal growth and differentiation during development • Study of programmed cell death • Study of biochemical action of cancer chemotherapeutics

Core technologies and expertise:

- Staff trained in: biochemical, molecular biology, recombinant DNA, advanced cytogenetic, genetic, protein and microscopic techniques
- Expertise in: cancer biology, apoptosis, gene expression, anticancer drugs, development, functional genomics, thrombosis, platelet function, and genomic instability

Specialized facilities/equipment:

- Manitoba Breast Tumor Bank • Genomic Centre for Cancer Research and Diagnosis • Centre for Mammalian Functional Genomics • DNA Sequencing Facility • Manitoba Breast Cancer Research & Diagnosis Centre

Certifications:

- While not a degree granting institution, we play a major role in training scientists, graduate or postgraduate students, medical trainees, and investigators from around the world

Important patents/licenses:

- Improved treatment method for abnormal cells • Identification of compounds which increase the therapeutic index of chemotherapy drugs • Method of treatment of hormone – unresponsive metastatic prostate cancer • Methods and markers for detection and treatment of premalignancy • Proteins and methods for inducing apoptosis • Proteins and methods to induce or inhibit necrosis in various tissues • CD36 synthetic peptide: file held jointly with the University of British Columbia, who is taking the lead on patent prosecution and commercialization • Novel hyaluronan receptor that mediates tumor cell motility (two patent files related to mouse sequences, and the third relates to the human sequence)

Current strategic partnerships/alliances:

- MetaSystems Group Inc., Applied Spectral Imaging Inc., Applied Imaging, University of Besancon – France, German Cancer Research Centre – Heidelberg, Karolinska Institute – Sweden, National Institute of Health – Maryland, USA, Canadian Disease Network, Genome Ontario, University of Calgary

Partnering/collaboration sought or offered:

- Available through our principle investigators and centres

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Telephone: (204) 787-2391

Fax: (204) 787-2190

Website: www.umanitoba.ca/institutes/manitoba_institute_cell_biology/index.html

companies

Manitoba Institute of Child Health

Public Contact: Dr. Malcolm Ogborn
 Address: 513-715 McDermot Avenue
 Winnipeg, Manitoba
 Canada R3E 3P4
 Telephone: (204) 789-3750
 Fax: (204) 789-3915
 E-Mail: info@mich.ca
 Website: www.mich.ca

Company Founded: 2001
 No. of Employees: 101

Nature of business activities:

- Dedicated to excellence in pediatric research, from bench to the bedside
- 60,000 sq. ft. of research and clinical space available for over 100 research and support personnel to carry out \$4 million of research and clinical trial activity

Core technologies, specialized skills and expertise:

- Biology of breathing (respirology, allergy and clinical immunology, and neonatology)
- Developmental pharmacology
- Centre for the Investigation of Genetic Disease
- Nutrition and metabolism
- Allergy/clinical immunology
- Allergy laboratory
- Autism
- Developmental neuropathology
- Endocrinology
- HPLC laboratory
- IMPACT
- Infant nutrition
- Infectious diseases
- Nephrology laboratory
- Neurobiology
- Pediatric identification
- Pulmonary cell biology
- Pulmonary cell biology (asthma)
- Respirology
- Telehealth

Specialized capabilities:

- Clinical trials
- Epidemiologic studies
- Experimental pathology
- Experimental pharmacology
- Toxicology
- Image analysis and morphometry
- Health information system research (including PHIA compliance)
- Molecular biology

Current strategic partnerships or alliances:

- Prairie Centre for Business Intelligence
- TRILabs
- University of Manitoba

Partnering/collaboration sought or offered:

- Clinical trials
- Contract research

Morden Research Centre

Parent Company:	Agriculture and Agri-Food Canada
Company Founded:	1915
Biotechnical activities since:	1980
Nature of business activities:	<ul style="list-style-type: none">• Research and Development• Agriculture• Crops• Plant breeding• Plant pathology
Core technologies and expertise:	<ul style="list-style-type: none">• Plant breeding• Plant pathology
Specialized facilities/equipment:	<ul style="list-style-type: none">• PCR laboratory• Level 3-biocontainment facility• Crop quality lab
Important patents/licenses:	<ul style="list-style-type: none">• Licenses of new varieties of crops
Current strategic partnerships/alliances:	<ul style="list-style-type: none">• Agribusiness
Partnering/collaboration sought or offered:	<ul style="list-style-type: none">• Agriculture related, pulse crops, flax, and ornamental landscape plants

Public Contact: Dr. Campbell Davidson
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Morden, Manitoba
Canada R6M 1Y5
Telephone: (204) 822-7207
Fax: (204) 822-4471
E-mail: cdavidson@em.agr.ca
Website: www.res2.agr.ca/winnipeg/welcome.htm

National Centre for Agri-Food Research in Medicine

Address: St. Boniface General Hospital
Research Center, 351 Tache Avenue
Winnipeg, Manitoba
Canada R2H 2A6
Telephone: (204) 237-2425
Fax: (204) 231-1151
Website: www.sbrc.ca/ncarm

Parent Company: St. Boniface General Hospital
Research Centre

Director: Dr. Grant Pierce

E-mail: gpierce@sbrc.ca

Biotechnical activities since: 1999

Nature of business activities:

- Examine health-related benefits of natural health products (nutraceuticals and functional foods)

Core technologies and expertise:

- Basic science biomedical research
- Clinical trials
- Analysis of active ingredients

Specialized facilities/equipment:

- State-of-the-art medical research facility
- State of the art equipment (HPLC, GC, mass spectrometry, confocal microscopy, molecular biology, cell culture, and histology)

Important patents/licenses:

- Patents pending

Current strategic partnerships/alliances:

- Partnered with numerous companies to test their products under clinical trials or in basic science experimentation

Partnering/collaboration sought or offered:

- Collaborations are sought with any company, institution, or investigator with interests in our capabilities

National Microbiology Laboratory

Parent Company:	Health Canada
Director:	Dr. Dorothea Blandford
E-mail:	dorothea_blandford@hc-sc.gc.ca
No. of Employees:	165
Branch Offices:	Population and Public Health Branch
Biotechnical activities since:	1999
Nature of business activities:	Reference diagnostics Surveillance Research and development Education and training – infectious diseases and biosafety
Core technologies and expertise:	<ul style="list-style-type: none"> • DNA Microarray • Disease Surveillance • PulseNet Canada • TSE/Alzheimer's Biorepository
Specialized facilities/equipment:	<ul style="list-style-type: none"> • Levels 2, 3, and 4 biocontainment laboratories • Electron microscopy • Level 3 insectory
Current strategic partnerships/alliances:	<ul style="list-style-type: none"> • Global Health Security Network • University of Manitoba • Province of Manitoba (Health) • Winnipeg Regional Health Authority • Cangene Corporation • Cadham Provincial Laboratory • Universities of British Columbia, Saskatchewan, Toronto, Nairobi, Oxford, Ghent & Washington • CIDA • United Nations • IAVA • WHO • World Bank • CIHR • Pan European Health Organization

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1015 Arlington Street
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Telephone: (204) 789-2000

Fax: (204) 789-2097

E-mail: dorothea_blandford@hc-sc.gc.ca

Website: www.nml.ca

NRC - Institute for Biodiagnostics

Public Contact: Dr. Ian Smith
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 Winnipeg, Manitoba
 Canada R3B 1Y6
Telephone: (204) 984-4890
Fax: (204) 983-3154
E-Mail: research@ibd.nrc-cnrc.gc.ca
Website: www.ibd.nrc-cnrc.gc.ca

Company Founded: 1992
No. of Employees: 150

Nature of business activities:

- Magnetic resonance imaging and spectroscopy
- Infrared spectroscopy and imaging
- Fluorescence and thermal imaging
- Advanced biomedical software

Core technologies, specialized skills and expertise:

- Pre-clinical research
- Infectious diseases research

Specialized capabilities:

- Magnetic resonance imaging and spectroscopy, infrared spectroscopy and imaging, fluorescence and thermal imaging, advanced bio-medical software

Important Patents/licenses:

- 33 patents approved or pending

Current strategic partnerships or alliances:

- Foothills Hospital - Calgary, Alberta
- Brain Repair Centre - Halifax, Nova Scotia
- Institute for Magnetic Resonance Research - Sydney, Australia
- Health Sciences Centre - Winnipeg, Manitoba
- St. Boniface Hospital - Winnipeg, Manitoba
- M.D. Anderson Cancer Center - Houston, Texas
- Ross Tilley Burn Centre, Sunnybrook Hospital - Toronto, Ontario

Partnering/collaboration sought or offered:

- Medical diagnostic devices and procedures
- Medical diagnostic software

Richardson Centre for Functional Foods and Nutraceuticals

<p>Parent Company: Company Founded: No. of Employees:</p>	<p>University of Manitoba 2002 2 full time; 2 part time</p>	<p>Public Contact: Kelley Fitzpatrick Marketing and Research Development Manager Room 256 Agriculture and Food Science Building Winnipeg, Manitoba Canada R3T 2N2</p> <p>Telephone: (204) 474-9713 Fax: (204) 474-7525 Email: kelley_fitzpatrick@umanitoba.ca</p>
<p>Nature of business activities:</p>	<ul style="list-style-type: none"> • \$25 million centre of research and training excellence • development of functional, health-enhancing foods and nutraceuticals, from agricultural products of importance to the prairie region • A university initiative led by the faculties of Agricultural and Food Sciences, Human Ecology, Medicine and Pharmacy 	
<p>Core technologies, and expertise:</p>	<ul style="list-style-type: none"> • Identification, enhancement, analysis and characterization • Determination of safety and efficacy • Early stage clinical testing, using animal models • Determination of optimum processing and packaging to maintain the quality and bioactivity • Determination of consumer acceptability of bioactive compounds and their subsequent incorporation into products 	
<p>Important Patents/licenses:</p>	<ul style="list-style-type: none"> • Numerous through the Faculties of Agricultural and Food Sciences, Human Ecology, Medicine and Pharmacy 	
<p>Current Strategic partnerships or alliances:</p>	<ul style="list-style-type: none"> • Winnipeg: National Centre for Agri-Food Research in Medicine at the St. Boniface Research Centre (NCARM); Center for Research and Treatment of Atherosclerosis; Agriculture and Agri-Food Canada, Cereal Research Centre; Canadian Grain Commission, Grain Research Laboratory, Canadian International Grains Institute; National Research Council, Institute for Biodiagnostics • Manitoba: Food Development Centre, Portage la Prairie • Canada: POS Pilot Plant; National Research Council, Plant Biotechnology Institute; Alberta Research Council; Institute of Functional Foods and Nutraceuticals, University of Laval 	
<p>Facilities:</p>	<ul style="list-style-type: none"> • Total of 59,000 sq. ft. • Eight research laboratories will be established and equipped to perform work in food safety, food development, quality control, analytical and molecular biology. Associated with the labs will be lab support areas, 10 research offices and space for up to 36 graduate students and 4 visiting scientists • Plant growth chamber area • Animal care facility - mice, rats, rabbits. Designed GLP ready area - able to accommodate pathogen free and immune compromised test animals as well as conventional animals with various cage systems • Pilot plant - facilitates intermediary step for scale up of processes from lab scale to commercial scale • Administration offices, theatre, library and cafeteria 	
<p>Schedule: Partnering/collaboration sought or offered:</p>	<ul style="list-style-type: none"> • Complete construction – September 2005 • Collaborations are sought with any company, institution, or investigator with interests in our capabilities 	

companies

Spinal Cord Research Centre

Public Contact: Sharon McCartney
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Website: www.scrc.umantoba.ca

Company Founded: 1987
No. of Employees: 48

Nature of business activities:

- Conduct research into the mechanisms controlling the major functional systems in the brain and spinal cord, and develop this knowledge to provide new clinical tools for the treatment of injury and disease affecting these functional systems. In particular, the SCRC is an environment for world-class spinal cord research.

Core technologies, specialized skills and expertise:

- Spinal cord electrophysiology and neuropharmacology investigating the control of movement, bladder function and sexual function
- Development of devices and pharmaceutical agents for treatment of neurological injury

Important Patents/licenses:

- Several members of the SCRC have been successful in the development of intellectual property (Drs. Cheng, Nagy, Nance), software (Drs. Jordan, Kriellaars) and devices for rehabilitation (Drs. Kriellaars, Nance)

Current Strategic partnerships or alliances:

- Universities of Glasgow, Goteborg (Sweden), Alberta, Dalhousie, Miami, North Carolina, Drexel University, Arkansas, Montreal
- University of California, Los Angeles Brain Research Institute
- Panum Institute (Denmark), CINVESTAV (Mexico)

St. Boniface General Hospital Research Centre

Company Founded: 1986
 No. of Employees: 225

Public Contact: Frederick Innes
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 Winnipeg, Manitoba
 Canada R2H 2A6
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Nature of business activities:

- The St. Boniface General Hospital Research Centre is a state-of-the-art medical research institute

Core technologies and expertise:

- Cardiovascular, advanced medical imaging, and degenerative disorders associated with aging (such as Alzheimer's and stroke)
- Infectious diseases/microbiology, nephrology, surgical research, pharmaceuticals, nursing research, sleep related breathing disorders, anesthesia, teleradiology and family medicine
- Nutraceutical research
- Phase 1 clinical trials

Specialized capabilities:

- Major program areas include basic & applied cardiovascular sciences, magnetic resonance imaging and spectroscopy and degenerative neurological disorders associated with aging
- Research programs in infectious diseases/microbiology, anaesthesia, psychiatry, sleep-related breathing disorders, nursing, nephrology, epidemiology and surgery
- Specialized expertise in pharmaceuticals, robotics, medical lasers, microwave applications in waste destruction, surgical device development and small scale drug manufacturing
- Close proximity to St. Boniface General Hospital offers excellent clinical trial opportunities

University of Manitoba – Faculty of Agriculture and Food Science

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Fax: (204) 474-7525

E-mail: foodcas@ms.umanitoba.ca

Website: www.umanitoba.ca/afs/food_science/

Parent Company: University of Manitoba

Department Head: Dr. Rachel Scarth

No. of Employees: 24

Biotechnical activities since: 1966

Nature of business activities:

- Education, QA program, HACCP, research and development, value added processing, shelf life extension of perishable foods, industry service work possible in all areas of our expertise

Core technologies and expertise:

- Cereal, protein, carbohydrate chemistry
- Food microbiology
- Food safety
- Active packaging films
- Research and development
- Dairy and horticulture crop processing
- Ingredient functionality in foods
- Natural health product extraction stability potency

Specialized facilities/equipment:

- Food pilot plant
- Dairy pilot plant
- Library
- Size reduction equipment
- Pasteurization (HTST)
- Cooking and frying
- Vacuum evaporation
- Fluidized bed dryer, drum dryer
- Texture analysis
- Full microbiology and chemistry laboratories

Certifications:

- Institute of Food Technologists accredited undergraduate (B.Sc. Food Science) program

Important patents/licenses:

- Dairy plant federal license

Current strategic partnerships/alliances:

- Contract research and grant funded projects with many food companies across Canada

Partnering/collaboration sought or offered:

- Technological assistance offered to industry

Parent Company: University of Manitoba

Nature of business activities:

Core technologies and expertise:

Specialized facilities/equipment:

Certifications:

Important patents/licenses:

Current strategic partnerships/alliances:

Partnering/collaboration sought or offered:

- Research and development, educational programs, professional development programs, product development
- Mass spectrometry, proteomics, bioinformatics, mouse models, genomics, biomarkers, infectious diseases, cardiovascular sciences, cancer, pediatrics, functional foods, nutraceuticals
- Time-of-flight mass spectrometer, proteomics centre, Manitoba Institute of Cell Biology, Richardson Centre for Functional Foods and Nutraceuticals
- CFIA, USDA, NIH
- Over 30 licenses, over 500 patent applications
- Springboard fund with Crocus Investment Fund
- Leading one and participating in 16 of 22 National Centres of Excellence
- Licensing of inventions from university research

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