



An Overview of Saskatchewan's Bioscience Cluster

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Ag-West Bio Inc.*

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Ag-West Bio Inc.

- Established in 1989 (not-for-profit corporation)
- Primarily funded by Saskatchewan Ministry of Agriculture
 - \$1.5M annual budget
- Staff: 9 core, 3 part-time/contract
- Member-based (approximately 100 members)
- Role: Catalyst in growing Saskatchewan's bio-economy



Ag-West Bio Inc.

- Four strategic objectives
 1. Networking and Communication
 - e.g. international delegations
 2. Commercialization
 3. Member Support
 4. Advice to Government

www.agwest.sk.ca



Saskatchewan

- Population 1.1 M
- 43% of Canada's arable land (17M hectares)
- Canadian leader in ag exports (>11B)
- Leading exporter of potash
- Second to Alberta in petroleum production

Saskatchewan's Agri-Food Sector

A few highlights:



- 96% of Canada's lentils
 - 65% of the world's lentil exports.
- 60% of Canada's dry peas
 - 55% of the world's pea exports.
- 83% of Canada's flaxseed
 - 36% of the world's flaxseed exports.
- 70% of Canada's mustard
 - 25% of the world's mustard seed exports.
- 49% of Canada's canola
 - 21% of the world's canola seed exports.
- 86% of Canada's durum wheat
 - 39% of the world's durum exports.

www.agriculture.gov.sk – Statistics: Who knew?

Saskatchewan's Bioscience Cluster



Innovation Place technology park



- Two parks – in Saskatoon and Regina
- 80 acres
- Adjacent to University of Saskatchewan
- 170 tenant companies employing 5000 people
- Offices, Greenhouses, meeting space
- Contributes \$1B annually to SK economy

University of Saskatchewan



- Hub of Saskatchewan's Research cluster
- Established in 1907
- Seven life science colleges
- Home of the Canadian Light Source, VIDO-InterVac and Global Institute for Food Security
- 4890 acres of land adjacent to campus dedicated to plant research

Saskatchewan's Bioscience Cluster

Public Sector



1. University of Saskatchewan College of Agriculture and Bioresources

Four theme areas:

Environment and Ecology

Plants and Animals

Food, Feed and Bioproducts

Business and Applied Economics

- Department of Food and Bioproduct Sciences
- Crop Development Centre

Contact: Mary Buhr, Dean
(mary.buhr@usask.ca)

www.agbio.usask.ca

Saskatchewan's Bioscience Cluster

Public Sector



2. Agriculture and Agri-Food Canada
Research and development in oilseed crops and condiment crops (canola, mustard), germplasm collection, biocontrol and biopesticide agents

Contact: Bruce McArthur, Acting Director
(bruce.mcarthur@agr.gc.ca)

www.agr.gc.ca

Saskatchewan's Bioscience Cluster

Public Sector



3. National Research Council of Canada, Saskatoon

Technology research organization:
genomic technologies, plant cell/tissue
culture, wheat, oilseeds

Contacts:

Pierre Fobert, Director
(pierre.fobert@nrc-cnrc.gc.ca)

Faouzi Bekkaoui, Executive Director
(faouzi.bekkaoui@nrc-cnrc.gc.ca)

www.nrc-cnrc.gc.ca

Saskatchewan's Bioscience Cluster

Public Sector



4. Global Institute for Food Security

Established in 2012

Foundational research plant science

Developing SK-led solutions to global food security

Leading a new Phenotyping and Imaging Research Centre

Contact: Maurice Moloney, CEO
(gifs.director@usask.ca)

www.gifs.ca

Saskatchewan's Bioscience Cluster

Public Sector



5. POS Bio-Sciences

Processing research and development
Custom-engineered process solutions for
bio-based products

From R&D to market scale

Extraction, fractionation, modification and
purification of bio-based materials

Contact: Dale Kelly, CEO (dkelly@pos.ca)

www.pos.ca

Saskatchewan's Bioscience Cluster

Public Sector



6. Saskatchewan Food Industry Development Centre

Research and development – food products

Food and process development

Interim processing, Extrusion technology

Skills development, training, food safety

Technology transfer and pathfinding

Contact: Dan Prefontaine, President
(dprefontaine@foodcentre.sk.ca)

www.foodcentre.sk.ca

Saskatchewan's Bioscience Cluster

Public Sector



7. Canadian Light Source

Canada's national centre for synchrotron research

Scientists use synchrotron light to study everything from the nutrient chemistry of soils and the molecular structure of plants to pharmaceuticals and bioindustrial products.

Contact: Robert Lamb, Executive Director
(robert.lamb@lightsource.ca)

www.lightsource.ca

Saskatchewan's Bioscience Cluster

Small and medium size companies



AdeTherapeutics Inc.

- developing products derived from a dipeptide to reduce post-surgery scarring
- Evitar™ lead drug product in Phase I/II trials
- www.adetherapeutics.com

Saskatchewan's Bioscience Cluster

Small and medium size companies



Agrisoma Biosciences Inc.

- developing energy feedstock crops with enhanced yield of uniform, high-quality oil for biodiesel and biojet fuel production.

- *Brassica carinata*

- www.agrisoma.com

Saskatchewan's Bioscience Cluster

Small and medium size companies



Bioriginal

- expertise in both plant and marine-based Omegas
- nutraceuticals, functional foods, cosmeceuticals, veterinary products and over-the-counter pharmaceuticals
- international scope
- **www.bioriginal.com**

Saskatchewan's Bioscience Cluster

Small and medium size companies



EcoLibra Systems Inc.

- wastewater treatment and water recovery solutions that are both economically attractive and environmentally sustainable.
- municipal and industrial work-site

www.ecolibrasystems.com

Saskatchewan's Bioscience Cluster

Small and medium size companies



Northern Vigor Berries

- a family owned business
- grows, harvests and produces value added products from seabuckthorn
- high in nutrients, antioxidants

www.northernvigorberries.com

Saskatchewan's Bioscience Cluster

Small and medium size companies



Open Mind Developments

- creates products from plants to provide earth conscious alternatives to conventional plastic
- 1st product: biodegradable iPhone case

www.openminddevelopments.com

Saskatchewan's Bioscience Cluster

Small and medium size companies



Phenomenome Discoveries Inc.

- a human health research company
- patented metabolomics biomarker discovery platform and informatics research tools to discover novel metabolite biomarkers
- COLOGIC® colorectal cancer blood test launched in 2012
- neurodegenerative disease tests

www.phenomenome.com

Saskatchewan's Bioscience Cluster

Small and medium size companies



Prairie Tide Chemicals Inc.

- commercializing a platform of high-value cyclic peptides from flax
- these peptides have shown exceptional promise as scaffolds for the synthesis of medically important drugs

www.prairietide.com

Saskatchewan's Bioscience Cluster

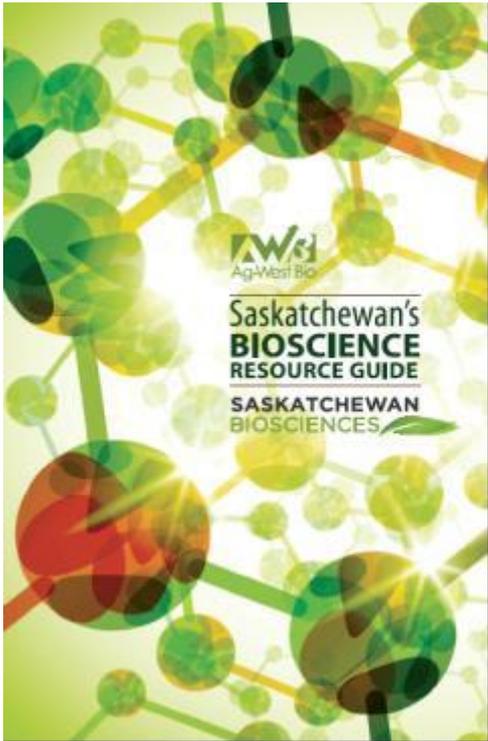
Small and medium size companies



Quantum Genetix

- provides DNA assisted management to the livestock industry
- genomic technologies and applications to develop efficiencies in food animal production

www.quantumgenetix.com



SASKATCHEWAN BIOSCIENCES

YOUR GUIDE TO CLUSTER'S RESOURCES AND INFRASTRUCTURE

www.agwest.sk.ca/sask_biosciences.html

Thank you!