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GROWING OUR FUTURE

FORESTRY | HEALTH | ENVIRONMENT | AGRICULTURE | ENERGY

Three vibrant green leaves are arranged in a fan-like pattern, overlapping each other. They are positioned on the right side of the page, partially overlapping the dark blue horizontal band.

life  
sciences  
IN ALBERTA



how **big** can  
we  
dream?

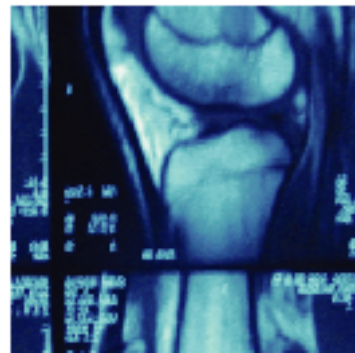
THE INVENTION OF THE WHEEL CHANGED THE WORLD WE LIVE IN. SO DID THE INDUSTRIAL REVOLUTION. THE LIFE SCIENCES HAVE THE POTENTIAL TO DO THE SAME THING. RECENT SCIENTIFIC DISCOVERIES HAVE DRAMATICALLY INCREASED OUR ABILITY TO DEVELOP NEW KNOWLEDGE AND INNOVATIONS IN THE LIFE SCIENCES. WE CONTINUE TO ACCOMPLISH THINGS WE'VE NEVER DONE BEFORE. DIABETICS ARE BEING FREED OF REGULAR INSULIN INJECTIONS. DISEASE RESISTANT CROPS ARE ENABLING FARMERS TO GROW HIGHER VOLUMES OF SAFE, NUTRITIOUS FOOD. WITH PROGRESS LIKE THIS, THE LIFE SCIENCES ARE EXPECTED TO CHANGE OUR WORLD MORE IN THE NEXT 50 YEARS THAN ELECTRONICS TECHNOLOGY HAS IN THE LAST 50 YEARS.



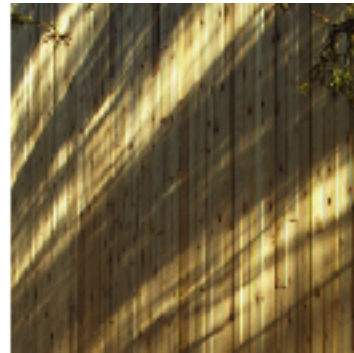
HEALTHIER FOODS



CLEANER ENERGY  
PRODUCTION



NEW DIAGNOSTIC METHODS



STRONGER  
INDUSTRIAL PRODUCTS



MORE EFFECTIVE  
TREATMENTS FOR  
DISEASE

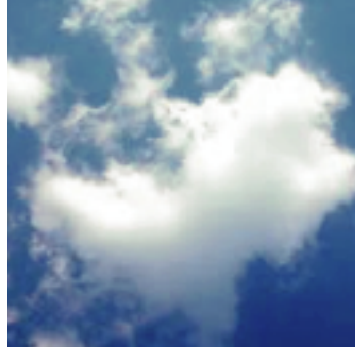


### THE LIFE SCIENCES INVOLVE ANYTHING TO DO WITH BIOLOGY

They encompass everything from agriculture and forestry, to genetic research and health care. They encompass our developing knowledge of living organisms and our use of that knowledge to improve our lives.

The life sciences hold the promise of curing diseases that have been around for centuries. They can help repair environmental damage. They can improve the quality and quantity of food produced in the province.

And Alberta has a chance to be a responsible leader on the global life sciences front, creating lasting economic, social and scientific benefits for our province, and a secure future for generations of Albertans to come.



A CLEANER ENVIRONMENT



### THE IMPORTANCE OF THE LIFE SCIENCES

Agriculture, energy, forestry, health, and information and communications technology are all important parts of Alberta's economy. Although each of these sectors has its own unique strengths, the life sciences will unite them by building on aspects of each of them to create a whole that is much stronger than its parts.

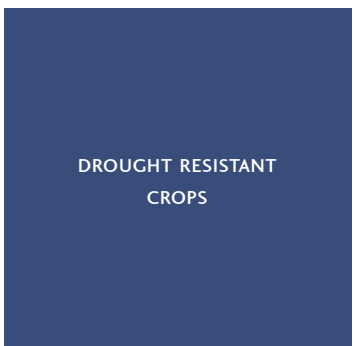
Sustainability is key to Alberta's future, and the life sciences will create opportunities for the province to establish a broader, more diversified economy. Our increasing knowledge of living things will enable us to create better health care, more nutritious food, a healthier environment, alternative energy sources, a stronger forestry industry, more jobs and a stronger economy.



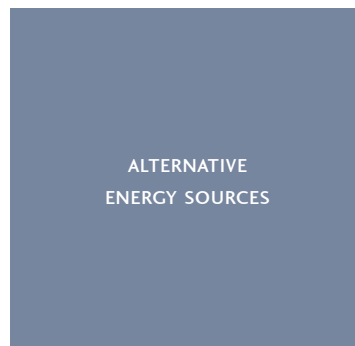
SUSTAINABLE AGRICULTURE  
AND FORESTRY



PROTECTION OF  
NATURAL RESOURCES



DROUGHT RESISTANT  
CROPS



ALTERNATIVE  
ENERGY SOURCES



PERSONALIZED MEDICINE



# the plan for Alberta

ALBERTA HAS DEVELOPED A PLAN FOR THE FUTURE. *GROWING OUR FUTURE: AN INTEGRATED LIFE SCIENCES STRATEGY FOR ALBERTA* OUTLINES THE PROVINCE'S PLAN TO IMPROVE OUR QUALITY OF LIFE AND ENSURE A SUSTAINABLE, PROSPEROUS ECONOMY FOR GENERATIONS TO COME.

THE STRATEGY HAS FIVE MAIN GOALS THAT WILL CREATE A FRAMEWORK FROM WHICH WE CAN BUILD.

**GOAL 1:** ESTABLISH ALBERTA AS A LEADER IN STRATEGIC AREAS OF LIFE SCIENCES RESEARCH, DEVELOPMENT AND INDUSTRY INNOVATION.

**GOAL 2:** BUILD LIFE SCIENCES RESEARCH CAPACITY AND EXCELLENCE IN THE PROVINCE.

**GOAL 3:** ENSURE A PROGRESSIVE, INNOVATIVE BUSINESS CLIMATE TO FOSTER AND SUSTAIN INDUSTRY INNOVATION AND GROWTH IN THE LIFE SCIENCES.

**GOAL 4:** HARMONIZE THE DEVELOPMENT OF THE LIFE SCIENCES WITH THE GOALS OF ALBERTANS.

**GOAL 5:** DEVELOP, ATTRACT AND RETAIN HIGH-QUALITY PEOPLE IN THE LIFE SCIENCES.

## Life Sciences Action Plan

**These are the initial actions to implement the strategy and set the long-term direction for life sciences in Alberta:**

- Establish the Alberta Life Sciences Alliance **(Goal 1)**
- Establish partnerships to promote research and industry capabilities **(Goal 3)**
- Encourage postsecondary institutions to revise curricula as necessary **(Goal 5)**
- Encourage postsecondary institutions to explore additional opportunities for co-op and internship programs **(Goal 5)**
- Develop and implement infrastructure plan **(Goal 2)**
- Establish an International Council on Life Sciences **(Goal 1)**
- Develop and implement human resources plan **(Goal 5)**
- Establish five research networks on biomaterials, bioenergy, health, nutrition, and environment and climate change **(Goal 2)**

**These are ongoing actions that will ensure a strong life sciences sector in Alberta:**

- Stimulate and coordinate development in functional genomics and proteomics, informatics, biodiversity and nanobiology **(Goal 2)**
- Increase strategic funding for life sciences research **(Goal 2)**
- Stimulate investment **(Goal 3)**
- Increase intellectual exchange **(Goal 3)**
- Increase magnitude and scope of public engagement in the life sciences **(Goal 4)**
- Increase capacity to analyze impact of technologies on quality of life **(Goal 4)**

The detailed action plan is available in the full strategy at [www.innovation.gov.ab.ca](http://www.innovation.gov.ab.ca)

# the future is ours to imagine

ALBERTA HAS A STRONG LIFE SCIENCES COMMUNITY. WE'VE EARNED A WORLD-CLASS REPUTATION THROUGH THE SUCCESS OF PROJECTS FUNDED BY THE ALBERTA HERITAGE FOUNDATION FOR MEDICAL RESEARCH. ALBERTA INGENUITY IS ALSO SUPPORTING LIFE SCIENCES ACTIVITIES, AS ARE THE RESEARCH INSTITUTES FOR AGRICULTURE, FORESTRY AND ENERGY. WORK IN THE LIFE SCIENCES IS ALSO HAPPENING AT RESEARCH UNIVERSITIES IN CALGARY, EDMONTON AND LETHBRIDGE, THE ALBERTA RESEARCH COUNCIL, AND IN INDUSTRY AND NUMEROUS OTHER PRIVATE AND PUBLIC ORGANIZATIONS.

## BUILDING ON THE SUCCESS OF THE LIFE SCIENCES COMMUNITY IS A LOGICAL STEP FOR ALBERTA

Our investment decisions today will affect the future of the province, in terms of economic growth, job creation and sustainable prosperity.

By building on our existing strengths in the life sciences, which include...

- a world-renowned medical research community
- agricultural, environmental and forestry research and development excellence, and
- the capacity to produce safe, high-quality crops and bioproducts, to name just a few

...we can create new opportunities for the province. We can improve how we produce the food we eat, how we prevent and treat illnesses, how we harvest our forests and manage our water supply, and how we power our cities. Some of the greatest opportunities will occur where research in one field can help advance discoveries in another.

# why choose Alberta?

PEOPLE ARE DRAWN TO PROSPEROUS ALBERTA FOR MANY REASONS. LONG KNOWN FOR BEING A LEADER IN MEDICINE, ENERGY AND AGRICULTURE, ALBERTA IS NOW ALSO BECOMING A CENTRE FOR THE KNOWLEDGE INDUSTRIES THAT MAKE UP THE LIFE SCIENCES. ALBERTA'S STRONG RESEARCH AND DEVELOPMENT CAPACITY IN HEALTH, AGRICULTURE, FORESTRY, ENERGY AND THE ENVIRONMENT ARE SUPPORTED THROUGH INCREASING EXCELLENCE IN BIOTECHNOLOGY, NANOTECHNOLOGY, AND INFORMATION AND COMMUNICATIONS TECHNOLOGY

ALBERTA OFFERS AN UNSURPASSED QUALITY OF LIFE, RICH AND DIVERSE NATURAL AND CULTURAL ENVIRONMENTS, AND A WEALTH OF PERSONAL AND BUSINESS OPPORTUNITIES. THESE RICHES, COMBINED WITH A HEALTHY ENVIRONMENT FOR INNOVATION, MAKE ALBERTA AN EXCELLENT LOCATION FOR DEVELOPING LIFE SCIENCES OPPORTUNITIES.

## THE RACE IS ON

There's only room for a limited number of centres of life sciences excellence to emerge around the world. Many of these are already in place, and the gap is closing for others to find their niche in this emerging area.

Through the Life Sciences Strategy, Alberta has chosen to become a significant centre of life sciences excellence. The province has an active life sciences research and development community with many strengths, and we continue to look for opportunities to capitalize on those strengths.

Implementing this long-term strategy requires a commitment from all of us. Success cannot be achieved by one sector in isolation. All partners – public, private and academic – must work together and make a long-term commitment to the future of the province. Together, we can ensure the safe, responsible use of the life sciences will improve the lives of people not only in Alberta, but also around the world.