2001-2002
Annual Report

Report to the Community

May 2003

CONTENTS

MESSAGE FROM THE PRESIDENT

Making a World of Difference

Our world is different. While we continue to encourage our students, faculty and community to reflect upon our fundamental values, we do so with increasing energy, striving towards the broad improvement of the human condition and as in the words of our first President, Henry Marshall Tory, the "uplifting of the whole people".

Our students are our greatest assets. Each year they join our international campus to learn and live in an atmosphere of tolerance and intellectual challenge. We continue to encourage our young people to become thoughtful, educated, well-rounded leaders of tomorrow, as befits our 94-year legacy.

The University of Alberta provides an atmosphere in which individuals can develop to their full potential. We maintain the lead, by a wide margin, on all Canadian Universities, in the number of 3M Teaching Fellowships awarded. With 23, our university remains first in the number of fellowships given since 1996.

Through the work of our faculty, no less in research than in teaching, we serve our community. For example, policy changes on acid emissions and legislation controlling phosphorus in soaps and detergents affect the quality of our environment, due to the work of our Dr. David Schindler, recent winner of the Gerhard Herzberg Gold Medal, the highest honour for Canadian researchers.

Another example is the ongoing tremendous work in Islet Cell Transplantation, an effective treatment for those suffering from Type 1 diabetes.

Of special importance is the establishment of the National Institute of Nanotechnology (NINT). In partnership with the federal government through the National Research Council and the provincial government, the University of Alberta is now home to this institute. The new technology allows researchers to manipulate individual atoms and molecules. NINT will position Canada to play a leading role in a field expected to have an economic impact of $1 trillion per year in the next 10-15 years. Nanotechnology will affect the lives of all, with advances in health, computing science, energy, biotechnology, education, manufacturing and engineering.

While NINT will be of tremendous value in building a diversified Albertan and Canadian economy in the future, for today, our university continues to foster this economic development through 76 new companies born of University knowledge since 1963, with active ones currently employing more than 1,000 highly qualified personnel.

Our vision is to be indisputably recognized in teaching, research and community service, nationally and internationally, as one of Canada's finest universities and amongst a handful of the world's best.

Our quest for the future is bold. Yet this Report to the Community demonstrates that the relentless search for knowledge that characterizes this dynamic, research-intensive university will ensure the ultimate fulfillment of our vision.

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REPORT CARD 2001-2002

Opened in 1908, the University of Alberta is one of Canada's premier comprehensive research universities, committed to serving the Alberta and broader communities by the dissemination of knowledge through teaching and the discovery of knowledge through research, expressed in the following core activities:

- Teaching and offering internationally respected degree and professional development programs within 14 faculties and 2 schools;
- Delivering a wide range of courses through distance and cooperative education programs;
- Fostering, conducting and disseminating research and creative activity;
- Linking research and creative activity with teaching and with our community.

The University occupied a total of 4,995 hectares (12,340 acres) of land, and 1,130,000 square metres in buildings. Within these totals, the main campus encompassed some 92 hectares (227 acres) of land and 140 buildings (89 academic and support, 47 residential, 4 car parks) covering about 964,600 square metres of gross building area. The average age of the buildings on the main campus was 50 years, and the replacement value was estimated at $1.5 billion. Some 10,838 full-time and part-time faculty and staff members provided learning and research services there, or 7,988 in full-time equivalent terms.

These facilities were occupied by some 10,692 part-time students during Spring and Summer terms and by some 32,300 full-time and part-time students during Fall and Winter terms, amounting to 27,931 "full-load equivalent" students for the year after computing the standard full loads for each student's program. They chose from more than 200 undergraduate programs and 170 graduate programs. Depending on program and load, students paid a variety of tuition fees according to the fee schedule, which was set according to Board of Governors decision within the boundaries of Alberta Learning's tuition fee policy. The sample fall/winter assessment set out for the 2001-02 Calendar year for a full-time Canadian undergraduate student taking 5 credit courses was $3,890. The ratio of tuition fee revenue to net operating expenditures calculated according to Alberta Learning's tuition fee policy was 22.6%.

The University of Alberta has continued to drive for the top in teaching, research and community service, as a number of indicators below will demonstrate, responding to the challenges of modern society and the Government of Alberta's goals. The particular impacts of terrorist activities in the fall of 2001 and a down-turned economy (and briefly lower energy resource prices) did, however, cast something of a pall on prospects for the sustained support that will be necessary for sustained success. The University's vision is long-term and comprehensive, requiring determined attention to its critical operating resource needs, the first of which pre-supposes all the others:

- Recruitment and retention of excellent faculty members;
- Up-to-date technology for teaching and learning;
- Improved class size and interaction opportunities (student/teacher ratio);
- Effective support services for evolving technologies and teaching and research innovations;
- Library acquisitions and services;
- Scholarship and bursary programs;
- A rich campus experience for students.

Space and infrastructure pose scarcely less pressing problems, as both classroom and research facilities are in places inadequate, reflected sometimes in inappropriate class arrangements, sometimes in space shortfalls for graduate students and research staff. Some space needs appropriate functional renewal or reconfiguration; other space awaits deferred maintenance before getting to the upgrades for modern use. Information technology infrastructure needs not only ongoing maintenance and renewal, but also continual attention to modern innovations and enhancement of capacity.

It is in these contexts that the following tables highlight selected University of Alberta achievements, and that a subsequent Performance Progress section reports on detailed measures under each of the University's four goals. Taken together, they present a picture of notable accomplishment coupled with mountain-top targets meant for achievement.

LIBRARY Resources and Services

	Rank in Canada	N. America
Toronto	1	3
Alberta	**2**	**28**
British Columbia	3	36
McGill	4	65

Source: Association of Research Libraries, 2001

NETWORKS of Centres of Excellence

Alberta	**21**
British Columbia	21
Toronto	21
McGill	19
McMaster	19

Source: Networks of Centres of Excellence, 2002

3M Fellowships for Teaching Excellence

Alberta	**23**
Western Ontario	17
Guelph	10
McMaster	8
Toronto	8
York	8

Source: Society for Teaching& Learning in Canada, 1986-2002

SPONSORED Research Revenue

Toronto	$371.7M
Montréal	$253.1M
McGill	$234.3M
Alberta	**$206.7M**
British Columbia	$166.0M

Source; CAUBO, 1999-00 (Montréal with EP & HEC)

NSERC Steacie Fellowships

Alberta	**7**
Toronto	6
British Columbia	3
McGill	3
Calgary	2

Source: NSERC, seven years to 2002

CIS Academic All Canadians

Alberta	**792**
McGill	732
Calgary	641
Queen's	604
Western Ontario	561

Source: Canadian Interuniversity Sport, 1990-2001

NSERC Industrial Research Chairs

Alberta	**11**
Waterloo	11
British Columbia	7
Montréal/École Polytechnique	6
Carleton	5

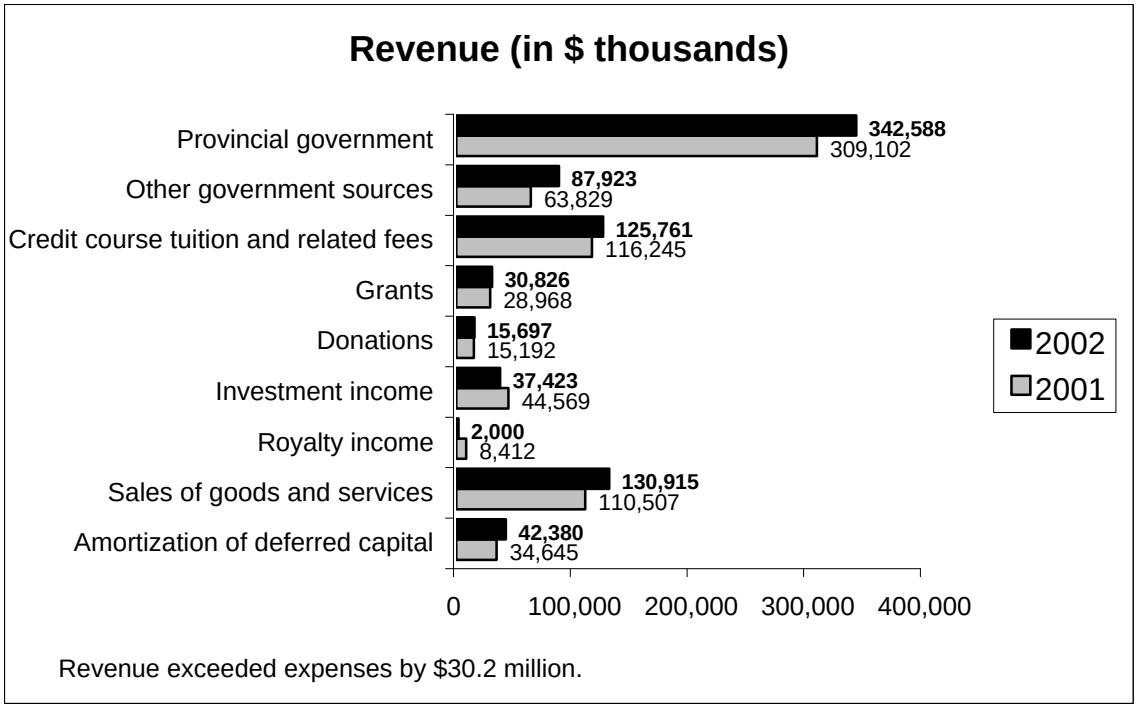
Source: NSERC, new awards seven years to 2001-02

UNDERGRAD FTE Enrolment

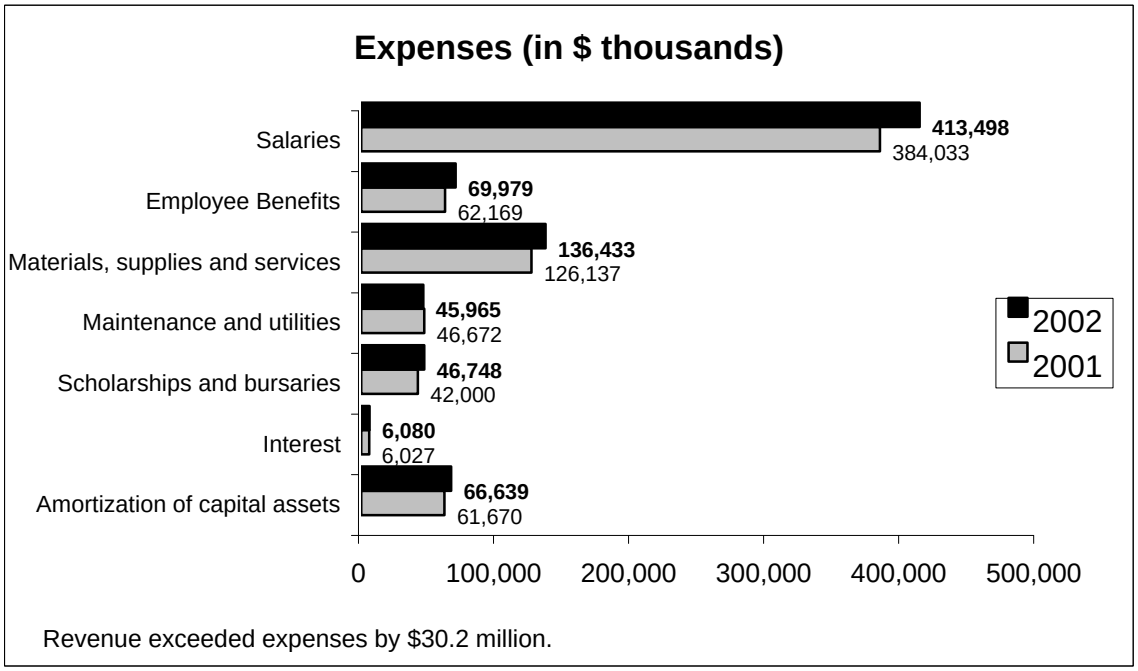
Toronto	37,352
Montréal	29,799
York	29,093
Alberta	**25,927**
British Columbia	24,310

Source: AUCC Fall 2001 Preliminary Full-Time Equivalent (Toronto + York Fall 2000, Montréal with EP + HEC)

FINANCIAL REPORT 2001-2002



Revenue exceeded expenses by $30.2 million.



Revenue exceeded expenses by $30.2 million.

Revenues exceeded expenses by $30.2 million. This excess is not available for general operating expenditures as it has been appropriated as follows:
a) $15.4 million invested in the University's infrastructure and equipment to enhance learning and research;
b) $0.6 million net transfer to endowments as approved by the Board of Governors;
c) $14.2 million used to reduce the unrestricted net assets deficiency to $23.7 million, down from $37.9 million in the prior year.

Tuition fee revenues subject to the Tuition Fee Policy amounted to $106,934,000 or 22.6% of the Net Operating Expenditures total of $472,584,000.

Complete audited financial statements can be accessed at:
www.financial.ualberta.ca

Research Funding (before deferrals)

(in thousands of dollars)

	2002	2001
Government of Alberta	65,708	59,053
Government of Canada	129,397	94,231
Municipalities, other provincial governments and hospitals	8,599	7,188
Canadian associations, foundations, institutes, individuals, etc.	15,261	16,238
Canadian Government and Non-government Organizations	**218,965**	**176,710**
Foreign government and public institutions	5,134	2,529
Foreign associations, foundations, institutes, etc.	8,397	5,124
Foreign Government and Non-Government Organizations	**13,531**	**7,653**
Canadian business	20,798	24,804
Foreign business	4,000	5,049
Business	**24,798**	**29,853**
Sales of goods and services	8,013	2,615
Endowment earnings allocated to research	22,159	23,717
Sales and Endowment Earnings	**30,172**	**26,332**
TOTAL SPONSORED RESEARCH*	**287,466**	**240,548**

*not including an estimated $16.8 million in clinical trials and related research funding with the Capital Health Authority and the Alberta Cancer Board

WATER, WATER, EVERYWHERE

Agricultural expansion, climate change and freshwater supplies are, beneath the surface, integrally connected issues. If current agricultural practices continue for the next 50 years, the effects could be catastrophic. And combined with increasingly dry weather patterns, freshwater resources are at risk says Dr. David Schindler, a University of Alberta biological sciences professor and winner of the 2001 $1-million Herzberg Gold Medal, Canada's highest research honour.

"The forecast is pretty gloomy," said Schindler, whose research during the 1960s and 1970s sounded the alarm on acid rain and led to a ban on the use of phosphorous in detergents.

Water security is a global problem requiring immediate action. According to UN estimates, every eight seconds a child dies of water-borne illness, and by the year 2025, two-thirds of the world's population will be living in water-scarce environments.

Schindler co-authored a study last year predicting dire consequences of current agricultural practices.

"The things we've been doing with the Green Revolution have helped, but we can't keep this type of agricultural production up forever. The fertilizer we're using, for example, is damaging our fresh water, which is even more important to us than food," Schindler said.

"Using the logic that what shaped the past will work for predicting the future, we came up with a plan to look at the parameters for agriculture in a 25 and 50-year time frame, and we found that the environmental consequences are very serious."

This year, Schindler was awarded the prestigious Natural Sciences, Engineering and Research Council's Herzberg Gold Medal.

The prestigious award includes $1 million in research funding. That means Schindler receives an additional $509,125 on top of NSERC's existing support for his research.

Ecologist and broadcaster Dr. David Suzuki could think of no better recipient of the award.

"David Schindler should be a role model for every budding scientist," said Suzuki. "He is a meticulous, inventive researcher who is open to approaches outside his own area of expertise. He sees with clarity that everything is connected to everything else; that the biosphere is a single entity and that anything we do has consequences. We need more scientists with that understanding...I congratulate the University of Alberta for supporting and holding on to Dr. Schindler."

Schindler has been internationally recognized for his research on the harmful effects that acid rain and phosphorous-rich detergents have on fresh water. His work has led to important public policy changes, including restrictions on acid emissions and legislation controlling phosphorous in soaps and detergents.

During the 1960s Schindler went against popular scientific theories that carbon was responsible for the over-fertilization of lakes. He proved phosphorous was the key stimulator of plant growth and animal population changes in lakes. In doing so, Schindler also pioneered a new method of research, using whole-ecosystem experiments that involved the study of entire lakes. Schindler established the Experimental Lakes Area in northwestern Ontario, which he directed for 22 years.

In 1989, he was appointed Killam Professor of Ecology at the University of Alberta.

Schindler has earned significant accolades in recent years. Among his many awards are the Stockholm Water Prize (1991) and the Volvo International Environment Prize (1998); Schindler is the only Canadian researcher to win either of the prestigious awards. Earlier this year he was named a Fellow of the Royal Society of London and a Fellow of the USA National Academy of Sciences. In addition, he has received the International Society of Limnology's Naumann-Thienemann Medal and the American Association of Limnology and Oceanography's Hutchinson Medal for his leadership and originality in developing the Experimental Lakes Area.

PUTTING THE 'WASTE' TO WORK

Faced with the daunting prospect of finding a new landfill site during the mid-1990s, the City of Edmonton committed itself to creating North America's largest composting project. Tapping into University of Alberta expertise, it is now discovering ways of putting waste to work.

Dr. Jerry Leonard, a professor of Bioresource Engineering in the Faculty of Agriculture, Forestry, and Home Economics was an instrumental player in establishing the Edmonton Waste Management Centre of Excellence. He is now "on loan" to the city to help co-ordinate research projects within the centre, many of which involve University and Alberta Research Council scientists.

"In general, I see my role as co-ordinating the city's research effort in waste management with what's going on at the University and what's going on elsewhere, such as at the Alberta Research Council, and being a bit of a cheerleader, I suppose, to get more people involved in doing research in waste management."

The projects include removing contaminants from wastewater, composting biological and industrial waste, and reducing greenhouse gas emissions.

"Every day the city produces tons and tons and tons of what we choose to call waste," said Leonard. "We are finding more sustainable options and ways of handling that waste."

In addition to his involvement with the city's composting initiative, Leonard has also helped to spearhead construction of the University's own enclosed composting facility. It is located at the Edmonton Research Station, where it is turning animal manure — 10,000 tonnes per year — into a nutrient-rich organic soil improver.

Leonard says the field of composting research is poised to make a significant environmental, industrial, and agricultural impact around the world. And Edmonton is becoming a major contributor to this effort.

"It's quite widespread," he said. "This is a nice biological way of dealing with a problem, and yes, I enjoy that."

THE SMALLEST FRONTIER

When the National Research Council announced it would locate the $120-million National Institute for Nanotechnology at the University of Alberta, a new research frontier expanded.

Nanotechnology has been touted as the gateway to discoveries limited only by the imagination. University of Alberta researchers are developing nano-scale devices ranging from hand-held laboratories capable of detecting and analysing cancer in a single blood cell to optical microchips that would render silicon semiconductors in computers obsolete.

Dr. Daniel Smith, the University of Alberta Canada Research Chair of Environmental Engineering, hopes to tap into the new technology to help ensure the security of freshwater supplies. Threats to this precious resource are increasing, sometimes with fatal results.

The new facilities at NINT will enhance research capabilities, including Smith's work on the effectiveness of various membranes used to prevent harmful micro-organisms from entering our water supply. Modern water treatment technology is costly, and Smith suspects some nano-scale membranes may provide effective water purification at a more affordable cost.

A steady supply of inexpensive and safe water should not be a foregone conclusion, says Smith, who also serves as director of the environmental engineering program at the

University. "Aside from air, water is the cheapest and most important resource we have," he said.

Nanotechnology cuts across all disciplines. In the Faculty of Science, Dr. John Bruce-Green is using nanotechnological techniques in a project he hopes will use pathogens such as viruses to map the surface of human cells with nanometer resolution and, in turn, aid in the development of new drug therapies to combat infections.

Many viruses and bacteria bind to the surfaces of human cells. The ability to inhibit that biding process is an essential step in fighting a number of important diseases. Presently, tests to study this binding only tell part of the story, letting researchers know whether or not a virus or bacteria has bound itself to a human cell. The difference with Dr. Green's project is that it will allow researchers to measure the strength of the binding and to quantitatively see how different drugs will affect these binding strengths.

"We want to take a real virus and measure the interaction force between it and every location on the surface of a human cell," he said. "Our technique should provide a very direct measure of that interaction force and do more than provide an 'on' or 'off' result. We will be able to assign specific values to each of the different interactions."

The procedure could also speed the process of testing new drugs. "If you're doing these tests and you flow through a drug, you might find it causes virtually no adhesion to that cell. We could easily measure 625 interactions in 10 or 15 minutes-you could then vary the drug and run a new test on another 625 interactions."

Dr. Green is also working on nanoelectronics, using single molecules to develop brand-new kinds of circuitry. "We're trying to create molecular electronic circuitry where the components are single molecules, to push electronic devices down to their smallest possible size and to take advantage of a number of quantum effects," he said.

A polymer made of silicon atoms, for example, could serve as an electronic wire. And even more exciting is the idea of smart circuitry, wherein the wires and components would be made up of a variety of different chemicals and would be able to dynamically respond to chemical changes on or around the nanometer-sized circuit.

Engineering professor Dr. Chris Backhouse is working with medical researchers to develop a microchip to diagnose cancer from a single cell. His research colleague at the Cross Cancer Institute, Dr. Linda Pilarski, presently uses macroscopic technology to understand and treat myeloma, a fatal form of bone cancer.

Although present techniques are promising they are also labour intensive and costly. So Backhouse and his partners developed a prototype of a microscopic diagnostic tool that can operate at the molecular level. Diagnostic procedures that require days to conduct could be completed in minutes, he says.

Scott Kennedy, a graduate student supervised by Micralyne/Natural Sciences and Engineering Research Council Chair and iCORE Professor Dr. Michael Brett, is working on a photonic bandgap crystal, a new type of semiconductor that could replace traditional silicon semiconductor transistors inside computer transistors.

Photonic bandgap crystals have the same properties as silicon and will eliminate the need to switch back and forth from fibre optics and traditional electrical wiring when signals reach hardware such as telephones or computers.

"We will have optical computers where there is not a single bit of electricity," Kennedy predicts.

NINT currently occupies 20,000 square feet on the sixth floor of the new Electrical and Computer Engineering Research Facility. And the University's Nanofabrication Facility (Nanofab) takes up 6,500 square feet in the same building. NINT will be housed in ECERF until it moves into the new 180,000-square-foot nanotech building, scheduled for completion in 2005.

NINT was created with a $60-million contribution from the federal government and another $60 million from the Alberta government and the University of Alberta. The federal government will also invest another $12 million per year to cover operational costs, beginning in NINT's sixth year.

How Do We Pay For Compassion?

The fact that Albertans spend more money on health care than anything else says something important about our social values. But how effective are we at putting those values into practice?

Although few topics have sparked such heated and widespread debate in Canada in recent years, health care issues have rarely attracted much attention from the nation's business schools.

That's changing. Two University of Alberta researchers are helping determine how health-care policies and decisions can best be implemented to achieve effective and lasting change in our health-care system. School of Business professors Bob Hinings, an internationally recognized expert on organizational change, and Heritage researcher Dr. Karen Golden-Biddle, director of Health Organization Studies, are principal investigators in the $600,000 three-year project to study health care from an organizational perspective.

Their work brings together researchers and graduate students to focus on issues ranging from the impact of regionalization and health workforce motivation to ways of improving quality.

"Health care has undergone dramatic changes in the past decade, and it appears that change is going to continue," said Hinings.

"By understanding how policy is put into practice in health-care delivery organizations, we can better ensure quality care," said Golden-Biddle.

Preventing a Tragic Loss

Sudden Infant Death Syndrome is the leading cause of death among Canadian infants between 28 days and one year of age. Its cause is unknown, but University of Alberta researchers could help solve the mystery and develop preventive treatments for this and other respiratory diseases that afflict children.

Dr. Klaus Ballanyi, who has earned international recognition as co-discoverer of a group of brain cells that regulate breathing in newborns, recently joined the University's Perinatal Research Centre to study the mechanism of respiratory rhythm generation in rodent models.

Strategies to stabilize respiration are being developed, said Ballanyi, whose work is funded in part by the Alberta Heritage Foundation for Medical Research. Researchers are trying to determine if these novel new drugs could correct irregular breathing in pre-term infants. "If that is the case, some of these agents may be administered to potentially threatened infants as a protective strategy against SIDS," Ballanyi said.

The neurophysiologist's work can also be applied to other childhood respiratory illnesses, including Ondine's Curse, in which the presence of carbon dioxide fails to stimulate breathing; and congenital diaphragmatic hernias, in which the diaphragm fails to develop completely.

Ballanyi's recruitment from the University of Gottingen in Germany is part of an ambitious growth program at the Perinatal Research Centre, which marked its tenth anniversary this year. "Dr. Ballanyi is a world-recognized perinatal neurophysiologist. We already have an internationally recognized researcher in this field, Dr. John Greer; and with Greer and Ballanyi together, along with the latest and best equipment, we have a stellar opportunity to attract more of the best grad students and faculty," said Dr. David Olson, director of the centre. "We plan to broaden our scope of research, as well as improve the transfer of knowledge from basic science to clinical science to the public.

"Problems that occur during pregnancies and at birth not only affect the immediate health of babies; they have consequences that can last a

lifetime," Olson added. "We're excited about all we've done and all we're doing now, but we're also excited about our future, and we plan to remain a key program in Canada and internationally for many years to come."

Dr. Ballanyi also receives funding from the Canada Foundation for Innovation, and the Canadian Institutes of Health Research.

BREATHE IN, BREATHE OUT

Approximately one in five children and one in 10 adults have asthma. To make matters worse, about 40 per cent of these patients have a co-existing panic disorder. Left undiagnosed and untreated these asthma-panic sufferers frequently become caught up in the vicious cycle in which one condition aggravates the other.

A pioneering team of University of Alberta nursing professors, Dr. Terry Davis, Dr. Carolyn Ross, and Dr. Brenda Cameron, working with pulmonary specialist Dr. Fred MacDonald, is focusing its research on identifying and helping such patients.

"We know that people with asthma are more likely to experience panic disorder than the population at large," said Davis, who is also a certified cognitive therapist. "Our question is when we recognize and treat panic disorder in asthmatics, do we only solve the panic problem or can we also change the course of the asthma?"

Working with Edmonton's Capital Health Authority, the research team has completed a clinical trial evaluating the impact of an eight-week treatment program it developed for adult asthmatics suffering from panic disorder. This new treatment was offered to adult female patients with asthma who were recruited from emergency departments throughout the Capital Health Region in Edmonton. "Women were selected for this trial because they have been shown to have about twice the incidence of panic disorder as men," said Davis. "Our positive findings demonstrate the treatment worked to reduce panic and improve the quality of life of these patients."

Left unmanaged, the combined experience of asthma and panic can be terrifying and even life threatening, says Ross. As a certified asthma educator, Ross is strongly interested in how people view and manage threatening events and symptoms. "Integral to our program of research is the idea of empowering patients," she said. "It's important that the person experiencing asthma symptoms learn to monitor the severity of the symptoms, and know when to go to the emergency department."

Cameron, also a certified asthma educator, has directed her research to the subjective experiences of patients with asthma and panic. Joining the group in 1998 as a qualitative researcher, Cameron has made an important contribution in describing what it feels like to live through the symptoms of asthma and panic and the difficulties experienced when patients in acute respiratory distress seek help in emergency departments. "When these patients develop a partnership with a health-care professional, it can make all the difference in the world to successful treatment," she said.

In addition to educating patients and health professionals about the co-existing conditions, the fruits of the Asthma-Anxiety Group's research may also be seen in health care utilization. "We suspect that asthmatics with unrecognized, untreated panic disorder over-medicate, visit doctors and emergency departments more often, and are hospitalized for longer periods of time," said Ross. "Costs might be reduced if we can help people make the distinction between asthma and panic. Patient health may also be improved.

NO ARGUING THEIR SUCCESS

You're speaking before a panel of judges in the biggest academic competition of your life, the final in the Canadian National Jessup Moot Competition on International Law. Perform well and your team wins. Do poorly and ...

So what happens in this cauldron of pressure? University of Alberta law student Curtis Schmeichel is standing there, quoting from a United Nations convention, a pretty heavy document. He sets it down on the desk and knocks over his glass of water.

"I remember thinking that if you fall in a shopping mall you just get up and keep walking as if nothing happened. So that's exactly what I did," said Schmeichel. "I just kept talking and my partner cleaned up the mess."

Obviously, Schmeichel's grace under pressure rescued what could have been a disastrous situation. He — along with fellow University of Alberta law students Patrick Duffy, Chantelle Washenfelder, Cyndy Nelson and researcher Cynthia Hykaway — won the national competition.

The win earned the group the opportunity to travel to Washington, D.C to compete against 365 teams from 50 countries in the International Jessup Moot Competition. The championship match for the competition, staged for students interested in international law, was held in the chambers of the United States Supreme Court.

The Jessup Moot win in Montreal was the latest in a string of successes for the University of Alberta Faculty of Law. Last year another student team — Robert Palser, Mike Reid, Sukhi Sidhu and Jeremy Kowalchuk — became the first University of Alberta team to win the National Gale Cup Moot. They later finished third in a Commonwealth-wide moot competition held in Sri Lanka.

In the Jessup Moot Competitions, a volunteer group of experts develops a fictitious international law problem, which involves fictitious participants. Teams of five are split into three groups: two people to argue the case of one nation, two people arguing the case of the other nation, and one researcher.

ANATOMY OF A LAND CLAIM

Whether it's sifting through thousands of historic documents to get to the truth of a land claims case or examining contemporary social values and exposing cultural indiscretions, the University of Alberta's School of Native Studies is regarded as a leader in First Nations research and education.

When the Metis Nation of Saskatchewan filed a land claim in 1994, a meticulous hunt for historic records was launched to support the case. The group sought the assistance of Dr. Frank Tough, director of the University's School of Native Studies.

Tough has formed the Metis Aboriginal Title Research Initiative — X (matriX) project to investigate historical land use of the Metis in northwestern Saskatchewan and federal scrip policies of the late 19th and early 20th centuries. Rather than negotiate treaties as it did with First Nations, the federal government offered the Metis scrip, a coupon that could be redeemed for land. The result is a complex paper trail documenting thousands of transactions.

The matriX project involves detailed examination of these records. Tough and a group of students are conducting a sort of forensic archival research, trying to coax history from hundreds of thousands of documents. The research work will fortify an emerging area of law dealing with Metis land claims, setting standards for evidence. There is no margin for error.

"We are looking at documentation of the administration of western lands from 1870 until 1930," said Tough. "Sometimes we've had to look

at individual records about five times to have them verifiedIn recognition of his research, as well as services he provides as an expert witness in Aboriginal law cases, the University of Alberta Aboriginal Law Students' Association has presented Tough with this year's Aboriginal Justice Award. The award is granted each year to recognize people who have made significant contributions in the area of Aboriginal law.

Dr. Pat McCormack is focusing on a pop-culture phenomenon that she feels deserves attention.

Mattel Barbie dolls have influenced generations of young girls the world over-but that influence has not come without a fair share of controversy. Critics of the dolls have long argued that Barbie causes girls to develop unrealistic and unhealthy body images.

McCormack, a Native Studies professor, says the limited line of Native Barbies produced reflect and reinforce traditional stereotypes about the lives of Native women.

"The Native American Barbies line presents a classic 'Pocahontas' image. Nothing else," McCormack said.

In the spirit of constructive criticism, McCormack devised a doll that would more accurately reflect the lives of Native women. The result? Blackfoot Barrel Racing Barbie. Decked out in blue jeans, cowboy boots and denim shirt, the doll looks every bit the part of a modern, rural, Blackfoot woman. "It's a bit of a quirky way to demonstrate a serious point," said McCormack.

"Doing this jogs people's minds. It reminds them that Native women right now across North America are involved in every profession under the sun," said McCormack.

McCormack also argues that this phenomenon has real impact on things such as museum collecting strategies.

"Museums across Canada have historically collected items that reflect the kinds of stereotypes represented by Native American Barbies. They should be collecting items that reflect the daily lives of modern Native peoples," McCormack added.

MAKING THE COURTS USER-FRIENDLY

Most Canadians never become involved in our civil justice system. But a national effort spearheaded by University of Alberta researchers is taking steps to ensure the system is accessible, understandable and effective for those who do.

Entitled the Civil Justice System and the Public, the research project will engage members of the public using the system, as well as those who work within it, to help bring about change. The idea is that, ultimately, Canadians have confidence in the system.

"The impetus isn't so much that there are problems with the system — reform is continuous and we want to make sure the public is kept in the loop," said Lois Gander, one of the project's principal directors.

Some expert witnesses, such as insurance industry workers, doctors or academics, often testify in court. "But even they may not always have a clear understanding of the court process," said Gander.

"Then there are members of the public, who are witnesses or litigants themselves and we want to know, while they're involved, what information is available and what information they need to feel more comfortable with the system. We want to improve two-way communication within the system."

To sociologist Mary Stratton, the project's research co-ordinator, communication is the key. "When you speak to the people using the system — often the last to be consulted — you get a different perspective and understanding. When that's combined with people working in the system, you can create a practical knowledge that recognizes the challenges on both sides and find solutions that wouldn't otherwise be possible." The multi-disciplinary project, led by the Canadian Forum on Civil

Justice, involves researchers from the University of Alberta faculties of Extension, Law, Arts, the School of Business and the School of Native Studies, along with partners in the judiciary, the legal profession, court administration, and community organizations. Funding is being provided by the Social Sciences and Humanities Research Council of Canada and the Alberta Law Foundation.

CREATING TOMORROW'S ROLE MODELS

If I'm not successful at home with my own children, then what business do I have teaching yours?" Karen Jackson, who lives on the Whitefish Lake Reserve near St. Paul, says it wouldn't be fair to her family if she were to pack up and go to school.

Jackson faced the prospect of attending university full-time away from home now or taking care of her family. "I asked myself, 'should I pursue this degree or walk my talk and educate my children first?' " An innovative program is allowing her to do both.

Her son, in Grade 3, has earned awards for academic and athletic achievements. Her daughter, in Grade 7, is an honours student. Jackson didn't want to take good things away from her children.

The University of Alberta's Aboriginal Teacher Education Program at the Blue Quills First Nations College at St. Paul, Alberta, allows Jackson and 20 other education students to earn their degrees in their own communities and according to their own traditions. Native elders at the school provide counsel and conduct important rituals, ensuring a spiritual and cultural counterbalance to academic pursuits.

"There are elders on site, and they come in and talk to us, as people who will be teaching — they come and talk to us about real-life stuff. We believe in addressing our emotional spiritual, physical, and intellectual selves, and they take care of aspects we might neglect because we are so busy working on our minds, writing papers, and taking tests," said fellow student Claudine Cardinal. "They really are trying to help us, that's for sure."

Cardinal is certain that the presence of Aboriginal teachers is important in the education of Aboriginal youth.

"It gives them someone to identify with, someone who knows the kind of community they come from," she said. "A reserve is a whole different community with a whole different value system and different norms than a town or a city."

Teaching is a family tradition for student Bill Halfe. His father taught at Saddle Lake and in the town of St. Paul. One of his uncles is the principal of a junior high school in Saddle Lake, and one of his cousins teaches at Elk Point and Frog Lake.

He agrees that Native students need Native role models, and believes teachers are role models. Part of being an effective teacher to Aboriginal students is to understand their culture thoroughly.

"Where our problems lie is not in elementary schools; it is in Grade 6 and on that kids on the reserve are more open to alcohol and drugs…whereas white kids are maybe not as exposed to it until high school."

Students "need to feel they belong to a group," and teachers can help fill that need in and outside of the classroom, by becoming community leaders.

"You can be a positive role model and organize activities that get a kid interested in a subject, and hopefully I can work on that."

Halfe has studied at the University of Alberta before, but is not in a position to attend full time because of other commitments. "I guess I'm a country boy. I have horses and dogs and animals that are my responsibility at home," he said.

"I really believe what we are doing is community development," says Blue Quills' President Leona Makokis. "We have been pushing to get our own people in classrooms. They are role models, they are part of the community; it enhances the whole community. It has a major ripple effect."

RENEWING FAITH IN HUMANITY

Blood flowed in Rwanda for 100 horrifying days in 1994 as genocide engulfed the African nation. Final estimates suggest one million lives were lost. Nathalie Uwantege survived the slaughter and has built a new life in Edmonton.

A second-year education student at Faculté Saint-Jean, the University of Alberta's French-language faculty, Uwantege arrived in Canada in April of 1994 from Burundi after having fled her native Rwanda. Even though she has built a life in Canada for herself and her two children, Uwantege does not want to forget her country or her roots. That is why she created a community group called Rafiki (friend of Rwanda). The non-profit community group puts on pot-luck picnics in city parks so that children who have a common background can play together while the adults pursue their healing in conversation with one another. Uwantege also teaches the children the traditional dances of Rwanda.

Uwantege has vowed that what happened in Rwanda in 1994 must never happen again. It was so horrible that she cannot speak out loud of the horrors she witnessed. "Much healing has gone on within the Rafiki membership," she said. "I have been fortunate enough to have a compassionate country like Canada welcome me with open arms, and I want to do something to create a better world."

One event on campus this year had particularly significant meaning for Uwantege: the University of Alberta's annual Human Rights Lecture was delivered by Lt-Gen. Romeo Dallaire (Ret.) Dallaire, who was in charge of United Nations forces in Rwanda as the genocide raged on. Uwantege had the opportunity to meet with the retired officer, who has struggled with depression and post-traumatic stress disorder as a result of his service in Rwanda.

"He loves the Rwandan people more than the Rwandan people love themselves," she said of Dallaire. "He even wants to live out his old age in Rwanda; he has my heartfelt and unconditional respect."

Shortly after Dallaire's lecture, the Rafiki held a commemorative ceremony to mark the nation's tremendous loss. "The grieving that still goes on amongst the Rwandan community was acknowledged, but the event was also held to signal our desire to build a future nourished by our hope of being able to foster a better world — a world where multiculturalism as found in Canada can flourish."

One day, Uwantege hopes to return to Rwanda to spend a year on a sabbatical helping native teachers there build a more understanding nation, one where Rwandans of all descent can live together in harmony. She knows it will be an uphill battle against poverty and ignorance, but states: "If we want the peoples of the world to live as we do here in Canada, we must help those who are elsewhere, and give them our best."

A group of Rwandan women — widows and victims of rape during the genocide, and who are now HIV positive — have set up an orphanage in Kigali, where they look after children who have lost their parents to the slaughter. The Benishyaka Association, or 'women of courage' has also created a rudimentary health clinic and an elementary school so the orphans can live and study together. It is these women, who have seen hell first hand and yet work at creating a better world with extremely limited means, who have inspired Uwantege.

SHE SHOOTS-SHE SCORES!

Sports supremacy doesn't happen overnight — it's something that gathers momentum and builds slowly, as one success builds upon another. That's the way the hockey season went this year for the national championship University of Alberta Pandas hockey team. Having gone undefeated through the entire season with a perfect 23-0 record, the squad is going to be remembered as one of the nation's all-time greats.

Though its profile received a boost with the Canadian team winning gold at the Winter Olympics, women's hockey as a competitive sport has only recently gained acceptance in Canada's sporting scene. But its roots run deep.

The University of Alberta Faculty of Physical Education and Recreation, through its Campus Recreation Program, has been at the leading edge in providing female students and staff with opportunities to play hockey.

Thirty years ago, women played hockey in the Campus Recreation league, but there were few teams playing; the women played only for six to eight weeks during the fall term and no gear was provided. The only playing equipment used was a pair of figure skates and a hockey stick.

This year, 826 women played on 28 teams in the Fall Women's League and 24 in the winter league. Each of the players was outfitted completely with equipment (with the exception of sticks and skates) by Campus Recreation.

The boom in women's hockey is a national phenomenon and the enthusiastic Canadian hockey community has been the driving force. However, what the University of Alberta program has been able to do is provide opportunities for many women (students and staff) to play the game at any level and in a safe, well-organized environment. No woman who wants to play has to be turned away as there are entry-level leagues, semi-competitive leagues, and competitive leagues in which to register. Instruction is provided for beginners.

Heidi Lippert, a recent MSc graduate (conservation biology), is an interesting case study. Originally from Seattle, Washington, Heidi enrolled in graduate studies at the University of Alberta in 1997. She had never played hockey before.
"When I came to Edmonton, I was bound and determined to play hockey and Campus Recreation provided me that opportunity," she said. Lippert joined a Campus Rec learn-to-skate class in the fall. Soon enough, she landed a spot on an entry-level team. The rest is history. Lippert moved up to the competitive league and helped form a team of colleagues from Graduate Studies-she has developed a real passion for hockey, and as she said, the sport provides valuable lessons.

"It really got me through my master's degree," she said. "It allowed me to have balance in my life."

Lippert now works as director of ticket sales for the National Hockey League Edmonton Oilers and she continues to play hockey. Her team now plays as the Edmonton Hellions in the Northern Alberta Female Hockey League.
The game has become part of her life.

"You know, I just can't see myself taking a job anywhere else where I couldn't play hockey," she said. "I owe a lot to Campus Rec at the University of Alberta. I was able to get some instruction when I first came to campus, was able to get on a team in a completely non-intimidating environment, and I now not only love to play the game, but am also employed by the Edmonton Oilers. I'm in heaven!"

The Pandas national hockey victory is a jewel in a crown fashioned by talented, hard-working athletes. This year, the University tied a national record by winning five national championships: as well as cleaning up in hockey, the Pandas won titles in rugby (for the third consecutive year) and soccer; Golden Bears teams earned Canadian championships in basketball and volleyball.

To top it all off, the University led the country in Academic All Canadians-athletes who excel in sports as well as academics.

How Do You Find The Words?

Top linguists and psychologists from around the world are collaborating to write "the book" on linguistics, and a University of Alberta professor is leading the project. Dr. Gary Libben and his colleagues are undertaking research they believe will lead to ways we can, for example, read and learn languages more quickly.

The project, which includes 23 international institutions, was awarded $2.5 million from the

Social Sciences and Humanities Research Council of Canada (SSHRC). Announced in February, the five-year grant is among the largest awarded by SSHRC this year.

"We're trying to achieve a comprehensive understanding of how words are accessed and understood in the mind by the brain," said Libben, lead researcher of the project and chair of the department of linguistics at the University of Alberta.

"Everybody uses language regardless of where they are from, but how language is processed in the mind and in the brain is highly complicated," Libben said. "If we can understand the mental processes of language, it will provide a good window to see how the brain works."

The research will yield both theoretical and practical benefits. For instance, Libben's group hopes to develop a comprehensive test to determine the extent of damage done to a person's ability to use language after a brain trauma, such as a stroke.

"Right now a lot of the work done by speech pathologists is trial and error, but we hope to develop a standardized test," said Dr. Lori Buchanan, professor of psychology at the University of Windsor and one of 13 Canadian collaborators on the project.

"Language is the thing that separates us from the animals," she added. "Language is complex and has multiple levels; this is the first research program that will attempt to tie all the levels together."

With a project conducted on such a grand scope, even Libben isn't sure what will come of the research. "We've put together a team of the best senior linguistic and psychology researchers in the world, and we aren't testing any theories," he said. "We're simply bringing all the research together to try to connect the dots and see what we come up with."

The ambitious project is not the only one Libben is working on these days. He's also leader of an initiative recently granted nearly $300,000 from the Canada Foundation for Innovation (CFI). The CFI grant will pay for a "lab on wheels" that will allow University of Alberta professors and graduate students to do research in the field.

"We have a good idea of how people behave in a metropolitan environment, but we want to see how 'real' people behave in their natural environment," said Libben. "For example, some of the Native languages are dying around us, so we want to go out into the field and do research with the people who speak these languages."

Libben's awards further strengthen the already stellar reputation of the department of linguistics. In another important development this spring, Dr. Johanne Paradis was named a Population Health Investigator by the Alberta Heritage Foundation for Medical Research, which provided a substantial grant for her work in the area of second-language acquisition.

TELL ME A STORY

Tololwa Mollel has never forgotten the evenings of his early youth, when he returned to his grandfather's coffee farm in northern Tanzania to share the things he had read at school. Mollel's grandfather would listen intently, probing for details. These were wonderful moments for both, which stirred within Mollel a love of storytelling that has never left him. The Maasai call the art of the spoken word and conversation 'eating words' or 'feasting on words' and the storytelling sessions were feasts of their own.

Today, after three decades of writing, Mollel has invited many thousands of children to share in the feast. He has written 16 children's books in English and three in Swahili. He has produced several plays. And he has published short stories in magazines around the world.

The common thread running through these works, he says, is the element that gives them universal appeal: they are based on folktales told in Africa and around the world. "All children love folktales because of the larger-than-life characters in them," said Mollel, who is working towards a combined PhD in English and Drama.

As part of his doctoral dissertation, for which he was awarded the prestigious Izaak Walton Killam Fellowship, Mollel is investigating the power of folktales to energize children's imaginations — whether those children live in an oral culture or a visual society such as ours. It is a subject he knows well, having been invited to read, speak and hold writing workshops in schools across North America.

"Storytelling with children is a great experience," he said. "As a writer, you never know what makes the narrative just right. It has to come by itself, almost like magic. Sometimes you feel it doesn't quite connect with them, so you go home and make a few adjustments. And then, on the next reading, their response just comes alive."

After 12 years of school visits, Mollel has interacted with thousands of children. The good memories, he says, are "too many to mention" — and many of them involved happy surprises.

"I recall the students in one high school in Wisconsin who gave me a totally unexpected welcome," he said. "I read to them my children's book The Flying Tortoise, and shared with them my experience of adapting it for the stage.

"This was a very academic private school, and I thought these students would be focused on chemistry and the sciences. But they were riveted by my folktale — they laughed and enjoyed it so much. They seemed so happy to have someone tell them a story."

This is a profound kind of pleasure, Mollel says, and its benefits extend beyond mere entertainment. "I believe storytelling humanizes children," he said. "It makes them think of those things that make us distinctly human: questions of right and wrong, questions of justice."

Since moving to Edmonton in 1986, Mollel has shared his art widely with local students and readers. He has served as president of the Writers' Guild of Alberta, and two of his theatrical works, The Flying Tortoise and The Visit of the Sea Queen, have been performed for and by students in Edmonton, Calgary and Lethbridge.

Most recently, Mollel's adaptation of a South African story, The Twins and the Monster, was performed to music by the Edmonton Symphony Orchestra for thousands of students.

"This is the kind of collaboration I want to do in the coming years," he said. "It will be interesting to see how many different media we can adapt these stories to."

Mollel's strongest desire, however, is simply to continue sharing his writing with young people. "I feel rewarded…to present a story simply and engagingly, in terms relevant to a child," he writes in an autobiographical sketch.

"In the end, I will be gratified if, through my stories, I can inspire a child as I had been inspired, to develop a love of feasting on words."

SHARING THE GIFT

Imagine life challenged by reading and writing tasks. For most of us these tasks are so integral to our lives that we rarely give them a second thought.

For many Canadians reading and writing represent overwhelming obstacles. Approximately 27 per cent of Canadian students quit school each year for a variety of reasons, including ongoing problems with literacy development. It is also known that approximately 38 per cent of Canadian adults experience difficulties reading directions on a prescription bottle, lack confidence in how to foster their children's reading and writing development, and are frustrated by literacy challenges in the workplace.

The University of Alberta's Centre for Research on Literacy, directed by Dr. Linda Phillips,

focuses on understanding what it takes to read well and to want to continue to read. Phillips also co-ordinates the literacy arm of the Canadian Language and Literacy Research Network. The national Centres of Excellence research program on language and literacy is supported by $14 million in funding over seven years from the Social Sciences and Humanities Research Council and represents the largest research grant ever awarded in the Social Sciences and Humanities in Canada.

The funding and scope of the project allows University of Alberta researchers to work across disciplines both here and elsewhere to study language and literacy in detail. Some researchers are using biomedical engineering technology to study reading disabilities, others are studying the importance of biological sensory stimulation to children's language development and reading ability, and some are studying the importance of socially transmitted print and symbol knowledge to language and literacy development.

Everyone can help to improve the levels of literacy, Phillips says. "Read every day, read to children and others every day, and discuss what you read. You can and will make a difference. By placing a high value on literacy in the home, the school, the workplace, and the community we convey that literacy is social and worthwhile."

PERFORMANCE PROGRESS

The following measures were adopted in the University of Alberta's Strategic Business Plan 2001-2005. Two points of information about subsequent developments are of interest here. First, four-year targets had not been set for the 2001-2005 Plan, but four-year targets would be set for the Strategic Business Plan 2002-2006. Second, some measures were modified or replaced in the subsequent 2002-0006 Plan: the most significant changes are listed immediately after these progress measures.

The single-year "targets" were probably too close for effective strategic effort to show very much in the intervening year. Nevertheless, it will be evident that progress over time has varied across the measures. Enrolment (with increasing grade levels) took a big jump in that single year, and sponsored research activity continued its recent climb. Resources are clearly receiving attention, with charitable receipted gifts and alumni support rising, while plans have been set in motion for close examination of administrative expenditures.

GOAL 1: The University of Alberta will prepare our students for successful lives and careers as leaders of tomorrow.

U of Alberta 1st Year Students:
Entering Grades from High School Averaging 80% or Better — **Annual Report 1**

	Actual						Target
	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2001-02
Proportion with 80% or better	**NA**	**58.9%**	**61.6%**	**65.3%**	**67.9%**	**70.8%**	**Under Review**

Program Quality — **Annual Report 2**

	Actual						Target
	1996	1997	1998	1999	2000	2001	2002
Proportion of students satisfied or very satisfied	**83%**	**NA**	**NA**	**77%**	**NA**	**79%**	**85%**

Source: Alberta Learning Student Satisfaction Surveys (slight variations in question and position in survey)

University of Alberta Student Enrolment (Full-Time Equivalent)

Annual Report 3

	Actual						Projection
	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2001-02
Total	29,874	29,841	30,123	30,481	30,575	32,246	31,398
Undergraduate	26,180	26,129	26,326	26,544	26,653	27,241	27,319
Graduate	3,694	3,712	3,797	3,937	3,922	5,005	4,079

University of Alberta Student Enrolment (Full-Load Equivalent)

Annual Report 4

	Actual						Projection
	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2001-02
Total	25,734	25,426	25,696	26,244	26,596	27,932	27,142
Undergraduate	22,538	22,268	22,410	22,573	22,918	24,053	23,747
Graduate	3,196	3,158	3,286	3,671	3,678	3,878	3,395

Teaching Awards (3M) Awarded to University of Alberta

Annual Report 5

	Actual						Target
	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2001-02
Accumulated Total and Rank in Canada	17 (1st)	18 (1st)	22 (1st)	22 (1st)	23 (1st)	23 (1st)	24 (1st)

Source: The Society for Teaching and Learning in Higher Education

Graduate Employment Success

Annual Report 6

	Actual						Target
	1997	1998	1999	2000	2001	2002	2002
% of Labour Force Employed	96%	NA	NA	96%	NA	96%	96%

Source: Alberta Learning Graduate Employment Survey

Student Satisfaction with Relevance of Programs

Annual Report 7

To Be Developed

CIS Academic All-Canadians

National Awards to University of Alberta since 1990-91

Annual Report 8

	Actual						Target
	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2001-02
Total and Rank in Canada	429 (1st)	508 (1st)	590 (1st)	686 (1st)	792 (1st)	901 (1st)	Under Review

Source: Canadian Interuniversity Sport

Year One Classes Taught by Continuing Faculty

Annual Report 9

	Actual						Target
	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2001-02
% taught by continuing faculty	47.7%	43.5%	43.4%	43.3%	44.5%	46.9%	

WebCT Learning Support Development and Use (Average % over both terms each year) — Annual Report 10

	Actual						Target
	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2001-02
% Courses Web-enabled	NA	NA	5.4%	12.7%	18.3%	27.6%	Under Review

Proportion of First Degree and Professional Graduates with Program Work Experience — Annual Report 11

	Actual						Target
	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2001-02
% with Program Work Experience	NA	NA	41.7%	43.4%	43.4%	45.7%	Under Review

Number of Incoming and Outgoing Official International Exchange Students — Annual Report 12

	Actual						Target
	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2001-02
Incoming	116	126	178	203	222	216	Under Review
Outgoing	102	121	126	136	117	109	

International Undergraduate Student Enrolment (as % of head-count winter-session enrolment) — Annual Report 13

	Actual						Target
	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2001-02
Visa and Permanent Residents	6.20%	6.10%	6.20%	6.40%	6.40%	6.44%	Under Review

GOAL 2: The University of Alberta will be a leader in the creation, integration, dissemination and application of knowledge.

Sponsored Research Revenue* (in $ millions) — Annual Report 14

	Actual						Target
	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2001-02
Sponsored Research Revenue ($ millions) and rank	$121.3 (4)	$135.4 (4)	$174.3 (4)	$213.9 (4)	$255.5 (4)	$304.2	Top 2 Ranking

* Figures include clinical trials and related research funding with the Capital Health Authority and the Alberta Cancer Board.

Ranking Source: CAUBO (based on somewhat different data)

Federal Research Council Funding and National Ranking* (in $ millions) — Annual Report 15

	Actual						Target
Funding Council	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2001-02
CIHR	$15.6 (5)	$15.9 (5)	$17.9 (5)	$20.5 (5)	$23.5 (5)	$29.2 (5)	See below
NSERC	$25.8 (4)	$27.0 (3)	$31.1 (3)	$33.3 (3)	$37.7 (2)	$36.0 (3)	
SSHRC	$4.9 (4)	$5.0 (3)	$5.3 (5)	$5.7 (5)	$7.1 (5)	$8.4 (4)	

* Regarding payments issued annually by these councils.

Target is to be ranked in top four universities from every council, top two from one council

Source: CIHR, NSERC and SSHRC

NSERC Steacie Fellowship
(4 to 6 awarded per year) **Annual Report 16**

	Actual						Target
	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2001-02
University of Alberta Awards	0	1	1	2	1	1	1

Source: NSERC

Networks of Centres of Excellence
Participation Rate in Canada's NCE's **Annual Report 17**

	Actual						Target
	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2001-02
Rank in Canada	1st (tie)	1st (tie)	NA	2nd (tie)	1st (tie)	1st (tie)	Top 2

Source: NCE

NSERC Industrial Research Chairs
(Approximately 10 awarded per year) **Annual Report 18**

	Actual						Target
	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2001-02
University of Alberta Awards	3	2	2	2	2	1	2

Source: NSERC

3-Year Average Annual Gross Licensing Revenues from University Research in $Millions — Annual Report 19

	Actual			Target
	1996-98 (Cdn$)	1997-99 (Cdn$)	1998-2000 (Cdn$/adj)	2001-02
Average Gross License Income and Rank	**4.22 (1)**	**4.03 (1)**	**3.15 (4)**	**Top 2**

Source: Association of University Technology Managers (AUTM)

GOAL 3: The University of Alberta will achieve institutional excellence.

Federal Councils Operating Grants per Continuing Faculty (3 year average) — Annual Report 20

		Actual					Target
		94-96	95-97	96-98	97-99	98-00	2001-02
Average Councils Operating Grant (rank)		**$4,716 (2)**	**$4,882 (2)**	**$5,186 (2)**	**$5,940 (2)**	**$6,120 (3)**	**Top Rank**

Source: Alberta Learning KPI calculations, based on federal councils individual operating grants and Statistics Canada full-time faculty data, ranking Canadian medical/doctoral universities

Average Salaries of Full-Time Faculty Rank in Group of Ten Universities — Annual Report 21

	Actual						Target
	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	
Average full-time continuing faculty salary (rank)	74,326	74,242 (7)	76,421 (7)	$81,881 (6)	$84,141 (6)	$87,637(6)	Top 3 in G10 universities

Source: Statistics Canada: non-medical/dental full-time faculty down to Assistant Professors, including Deans and Chairs

% Faculty and Staff Very Satisfied with Work Situation

Annual Report 22

To Be Developed

Operating Revenue (CAUBO submission) per Winter Student FTE (Statistics Canada)*

Annual Report 23

	Actual						Target
	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2001-02
Operating Revenue per student FTE	**$12,248**	**$12,208**	**$12,640**	**$14,431**	**$15,466**	**$15,892**	**Under Review**

* Operating Revenue as reported to the Canadian Association of University Business Officers (CAUBO); FTE means full time equivalent (winter session full-time students plus part-time students divided by 3.5).

Source: Statistics Canada and CAUBO

Charitable Gifts* University of Alberta

Annual Report 24

	Actual						Target
	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2001-02
Charitable Gifts	**$18.9 M**	**$23.0 M**	**$24.3 M**	**$39.7 M**	**$35.7 M**	**$43.1 M**	**$35.0M**

* Charitable gifts refer to philanthropic contributions and include general donations, donations to endowments, certain deferred contributions, gifts in kind and gifts of securities. Charitable gifts may be for immediate or future use.

Alumni Support
% making gifts to the University of Alberta — **Annual Report 25**

	Actual						Target
	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2001-02
% making gifts to the University	13%	13%	14%	14%	14%	17%	Under Review

Approved Capital Projects
Annual Report 26

	Actual						Target
	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2001-02
% completed on time					97.7%	No longer measured	100%
% completed on budget					95.0%		100%

Stakeholder Satisfaction with services
Annual Report 27

To be Developed

Improved Facility Condition Index
(improvement for 10-12 key strategic buildings in the Capital Plan — **Annual Report 28**

	Actual						Target
	1997	1998	1999	2000	2001	2002	2001-02
Average Facilities condition index	Not collected				58.90%	44.96%	Under Review

Administrative Expenditures % of Total Expenditures (less ancillaries) at the University of Alberta (2 yr average) — Annual Report 29

	Actual						Target
	95-97	96-98	97-99	98-00	99-01	00-02	
Administrative Expenditures	**3.9%**	**3.8%**	**3.8%**	**4.3%**	**4.6%**	**4.9%**	**Under Review**

Source: Alberta Learning FIRS/KPI calculations

GOAL 4: The University of Alberta will contribute to the needs of its communities.

Share of National Media Exposure (proportion of university news covering the University of Alberta) — Annual Report 30

	Actual						Target
	1996	1997	1998	1999	2000	2001	2002
TV proportion					**9%**	**6%**	**Under Review**
Print media proportion					**8%**	**6%**	

Source: Professional media analysis commissioned by the University of Alberta

Public Awareness of Excellence at the University of Alberta (proportion rating academic excellence above average or outstanding) — Annual Report 31

	Actual						Target
	1996	1997	1998	1999	2000	2001	2001-02
Within Alberta						**76%**	
Within Canada						**23%**	

Source: Professional public opinion poll commissioned by the University of Alberta every second year

Increase in Life-long Learning Opportunities	Annual Report 32
To Be Developed	

The following measures appear in new or significantly modified form in the subsequent Strategic Business Plan 2002-2006.

- Accessible Policies and Procedures
- Net Assets Deficiency
- Awards to Continuing Faculty
- New Spin-off Companies
- International Undergraduate Student Enrolment (visa only)
- Classroom Technology Renewal
- Quality of Teaching

CELEBRATING SUCCESS

Thousands of donors contribute in many ways to advance learning and research at the University of Alberta. Whether it helps cover costs for students who might not otherwise attend the University, or helps to purchase cutting-edge research equipment to help unravel medical mysteries, every gift counts.

In order to recognize contributors to its recent five-year, $194 million campaign, the University of Alberta has unveiled Celebration Plaza, a meeting place at one of the busiest intersections on campus and a symbol of the partnership between the University of Alberta and its donors.

The plaza's opening was attended by dozens of donors, some of whom had come quite a long way to celebrate. Dr. John Stephens, for instance, flew from Portland, Oregon to visit his alma mater and the "magnificent" new park, nestled between the Administration Building, University Hall and the Students' Union Building.

"My donation was to honour what they gave me, so it was a beautiful surprise to be honoured back," said the 84-year-old, class-of-'44 retired physician who continued his studies in Boston and Montreal. "The faculty here were so caring and amazing to me. I really felt encouraged in all of my endeavours."

The giving continues. This past year alone, the University received more than $43 million from its generous donors.

OUR PARTNERS IN PROGRESS

Unique in Canada, the **Alberta Heritage Foundation for Medical Research (AHFMR)** was created as independent from government yet accountable to the people of Alberta. Over the past two decades, AHFMR has invested more than $700 million in basic biomedical and health research largely through personnel support in 18 faculties at Alberta's universities. AHFMR funding programs attract and retain top people from students to internationally recognized scientists to our province. Headline-making discoveries such as the Edmonton Protocol for diabetes and the reovirus discovery for treating cancer are results of AHFMR's long-term investment in people. The University of Alberta is a partner with AHFMR in creating a community of research excellence.

Alberta Research Council Inc. (ARC) develops and commercializes technologies to give clients a competitive advantage. A Canadian leader in innovation, ARC provides solutions globally to the energy, life sciences, agriculture, environment, forestry and manufacturing sectors.An Integrated Resource Management program provides S&T for natural resource management and sustainable development to help safeguard long-term environmental, social and economic values. Expertise includes environmental monitoring, composting and reclamation technologies, water and wastewater treatment, and animal and human health.

The partnership between the University of Alberta and **Capital Health** has helped make our region a Canadian leader in every aspect of health sciences, from service delivery to teaching, research and commercialization of new discoveries. As one of Canada's largest integrated health systems, we work with the University every day to provide leading-edge health services to people from across western Canada, as well as building a better and more sustainable health system, and contributing to one of the country's most dynamic and diverse economies.

Field Atkinson Perraton LLP is proud to partner with the University of Alberta, one of Canada's finest universities. Since the early1900s, the firm has assisted the University with legal services that include labour and employment, general litigation, real estate, contract negotiation, intellectual property and business matters. Field Atkinson Perraton LLP has offices in Edmonton, Calgary and Yellowknife.

The **National Institute for Nanotechnology** is an integrated, multidisciplinary research institution involving researchers in physics, chemistry, biology, engineering, informatics, pharmacy and medicine. It is funded and operated through a partnership of the National Research Council of Canada, the Government of Alberta and the University of Alberta to carry out advanced research and innovation in support of a new generation of nanotechnology-based firms. Located on the University of Alberta campus in Edmonton, the institute's upcoming 12,000-square-metre facility is designed to accommodate 150 permanent staff; up to 45 guest workers from industry and universities; and training opportunities for some 275 graduate and post-doctoral researcher.