



THE KILLAM TRUSTS

**ANNUAL
REPORT
1999**

*Published by the
Trustees of the Killam Trusts*

THE KILLAM TRUSTS

The Killam Trusts were established in 1965 under the Will of Dorothy Johnston Killam for the benefit of Dalhousie University, Montreal Neurological Institute of McGill University, University of Alberta, The University of Calgary, The University of British Columbia and the Canada Council for the Arts. Mrs. Killam also established similar trusts during her lifetime for the benefit of Dalhousie and the Canada Council.

To date, over 3,900 scholarships have been awarded to graduate and post-graduate students and faculty.

The Killam Trusts also provide funds for Killam Chairs, salaries for Killam Professors, and general university purposes. The Canada Council, in addition to awarding Killam Fellowships, also awards annually the Killam Prizes in Medicine, Science and Engineering; they are Canada's premier awards in these fields.

In the words of Mrs. Killam's Will:

“My purpose in establishing the Killam Trusts is to help in the building of Canada's future by encouraging advanced study. Thereby I hope, in some measure, to increase the scientific and scholastic attainments of Canadians, to develop and expand the work of Canadian universities, and to promote sympathetic understanding between Canadians and the peoples of other countries.”





Izaak Walton Killam

Born in 1885 at Yarmouth, Nova Scotia.

Died in 1955 at his Quebec fishing lodge.

Izaak Walton Killam was one of Canada's most eminent financiers, rising from paper boy in Yarmouth, Nova Scotia to become head of Royal Securities. Having no children, Mr. Killam and his wife Dorothy Johnston Killam devoted the greater part of their wealth to higher education in Canada.

Notwithstanding his prodigious financial accomplishments, Izaak Walton Killam was a very reserved man who eschewed publicity and was virtually unknown outside a small circle of close acquaintances.



Dorothy Brooks Killam, née Johnston

Born in St. Louis, Missouri in 1899

Died in 1965 at La Leopolda, her villa in France

Unlike her reticent husband, Dorothy Johnston Killam was an extrovert who loved company and people generally. After she and Mr. Killam were married in 1922, they lived in Montreal, the centre of the Killam financial empire.

Mr. Killam died in 1955, and it was left to Mrs. Killam to work out the details of their plan in her Will. When she died in 1965, she left their combined estates to specific educational purposes and institutions, as well as a large gift to The Izaak Walton Killam Hospital for Children in Halifax.

THE KILLAM TRUSTS

1999 ANNUAL REPORT OF THE KILLAM TRUSTEES



It is almost impossible to pick up a newspaper or turn on the TV these days without being bombarded with talk of the “brain drain”. Depending on the speaker, you learn that many of our most highly educated and talented young people are leaving Canada, mostly for the United States. Or that only a few are leaving – in fact, far fewer than in earlier times. Or that, far from a brain *drain*, Canada is actually experiencing a brain *gain*, due to the large number of highly educated immigrants flocking to our shores. The Prime Minister says the brain drain is a phantom; the Leader of the Opposition says it is real; business leaders, academics and journalists are all over the map. So, which is it? And what of Canada’s future economic prospects, dependent as they are on a large and ever growing cadre of bright young scientists, engineers, doctors and humanists?

As we Killam Trustees pondered this issue at our annual fall “retreat”, we realized there was nothing we could say on the general subject – is there or isn’t there a brain drain – that couldn’t be said better and more authoritatively by others. But ... wait a minute!, we said to ourselves on further reflection. This “brain drain” question is nothing new. People talked a lot about it in the Canada of the 1950’s and 1960’s. And hadn’t Dorothy J. Killam herself said that her purpose in setting up the Killam Trusts was to slow down the exodus of Canadian scholars, or even reverse it? So, should we not examine the Killam statistics to see what light they shed on the subject?

Well, we have done just that. And the results are quite interesting indeed. You can see them presented in tabular form below. They tell quite a story:

- ◆ of those who were Canadian citizens when selected as Killam Scholars, only 8% now live elsewhere (mostly in the USA);
- ◆ of those who came to Canada from countries other than the USA to take up their Killam Scholarships, well over half (55%) have stayed;
- ◆ of the U.S. citizens who came as Killam Scholars, once again over half have stayed (51%) in Canada.

To state these results together in another way: the Killam Program has brought 617 top scholars to Canada permanently, for a “loss” of only 169 Canadians.

These figures are for all Killam award winners. They therefore include the Canada Council Killam Fellowship and Prize winners, chosen (for the most part) from the ranks of full-time professors employed at Canadian universities. If we look instead just at pre-doctoral and post-doctoral Killam Scholars, a more mobile subset not shown in the tables below, the results are similar: 89% of the Canadians remained in Canada, while slightly over half (54%) of those from countries other than the USA came and stayed. The big difference, as one might expect, lies with the American contingent: among pre-docs and post-docs, slightly over half (56%) returned home, while 38% stayed in Canada and the remaining 6% moved to a third country.

But beyond these raw statistics lies another fact, more important if less susceptible of quantification. As we explained in last year’s Report, when Mrs. Killam died in 1965

only a few Canadian universities sponsored graduate and post-graduate research programs of any kind. Most Canadian scholars who wanted to earn a Ph.D. degree or pursue post-doctoral work had to go abroad. The Killam Trusts helped make possible the very existence of graduate programs – or at the very least strengthened them greatly – in at least four of the Killam Universities: Dalhousie, University of Alberta, The University of Calgary and The University of British Columbia. Only McGill had a fully developed graduate program in those days. These new graduate programs have of course attracted many thousands of Canadians who were not Killam Scholars; if those programs had not existed, or had been weaker because they lacked Killam support, who knows how many of those scholars would have drifted off to the U.S., the U.K. or elsewhere to pursue their graduate work, never to return to Canada?

So, on the “Great Canadian Brain Drain Debate”, the Killam Trustees take no stand one way or the other. But we do say that if there is one, the Killam Trusts are helping to reverse it. And if there isn’t, the Killam Trusts are part of the reason why.

TABLE 1: COUNTRY OF RESIDENCE - ALL KILLAMS

Citizenship	Country of Residence		
	Canada	U.S.A.	Other
Canadian	1,998	124	45
U.S.A.	151	134	12
Other	466	115	259

This table shows the number of Killam award winners in each citizenship category who have stayed in Canada, gone to the United States or gone to some other country. Since country of residence is determined by current address, the data is taken from a subset of the main database. There are 3,304 people in that subset; the total number of Killam award winners in our database is 3,895.

TABLE 2: CITIZENSHIP AT TIME OF AWARD - ALL KILLAMS

Year	Citizenship				
	Canadian	U.S.	European	Asian	Other
1967-71	61%	9%	19%	7%	5%
1972-76	70%	12%	15%	2%	1%
1977-81	68%	13%	11%	4%	4%
1982-86	67%	9%	12%	8%	5%
1987-91	69%	9%	10%	9%	4%
1992-96	71%	8%	11%	7%	3%
1997-98	83%	5%	6%	3%	3%

This table shows the percentages of different citizenship categories over time. Since 1992, the percentage of Canadians winning Killam awards has increased.



This year's Killam Annual Lecture was given by Dr. Björn Svedberg, and a timely message it was, given our Canadian pre-occupation with the brain drain. His topic was "University Research as a Driving Force for the Development of a Modern Nation in the Next Millennium." As a leader in both the business and academic spheres in Sweden, Dr. Svedberg is certainly well qualified to speak on such a wide-ranging topic: he chairs the Royal Swedish Academy of Engineering Sciences, and also the Chalmers Institute of Technology in Gothenburg; and he is former President and CEO of both L.M. Ericsson AB, the Swedish-based telecommunications manufacturing multinational, and Skandinaviska Enskilda Banken, Sweden's largest bank. He knows Canada well, and as a friend: he chairs the Canadian Swedish Business Association.

According to *The Economist* (August 28, 1999), Sweden spends some 3.8% of its GDP on Research and Development, more than any other developed country. By comparison, Canada spends only 1.7%, less than all except Ireland, Italy, and Spain. Although Canada ranks more favourably when the comparison excludes industrial R&D and looks only at university and government-sponsored research, much remains to be done if we are to be competitive in the brave new world of the knowledge based economy that all developed (and most developing) countries are striving to attain. Besides, as Dr. Svedberg pointed out so clearly in his Lecture, the wall between university-based and industrial research – between basic research and applied research – is pretty porous as it is, and likely to become more so.

It follows that the brightening scene we see unfolding in university research, with the recent establishment of the Canada Foundation for Innovation, the Canadian Institutes of Health Research, and the 1,200 new university chairs under the 21st Century Research Chairs program, is really only half of the picture. Besides, no one – not even the government – argues that funding for academic research is yet up to par. As the Honourable Paul Martin, Minister of Finance, said on November 2 in his annual fall update: “The fundamental challenge and opportunity before us is to make the entire economy one of innovation and excellence.” He insisted that government must spend money on innovation and education to prepare the country for the new economy of the 21st Century, and he singled out children, skills training and R&D.

The Trustees’ purpose in sponsoring the Killam Annual Lectures is to bring the crucial subject of research to the notice of Canadian business, academic and governmental leaders. We hope that, by looking to the Killam model and its success

to date, others in both the public and the private sectors will be moved to do the right thing for Canada's R&D prospects, and with it, Canada's long term economic and social well-being.

You can get a copy of Dr. Svedberg's Lecture by writing to Christine Dickinson, Administrative Officer of the Killam Trusts, at the address on the outside back cover of this Report. Soon you will be able to find this and the previous four Killam Annual Lectures on our Killam website: www.dal.ca/killamtrusts.



On October 12, Chief Justice Joseph Kennedy of the Supreme Court of Nova Scotia handed down an Order which will have a profoundly positive effect on the Killam Trusts for as far into the future as we can see. The Order was in response to an Application by the Trustees, enthusiastically supported – indeed, originally proposed – by all six Killam Institutions. In the Application, the Trustees sought authority from the Nova Scotia Court (which has jurisdiction, since Dorothy J. Killam died domiciled in Nova Scotia, the province of her husband's birth) to permit the Killam Institutions to spend realized capital gains as a supplement to interest and dividends. At the same time, overall expenditures by each Killam Institution would be limited to levels that would ensure the capital values of the Killam Trusts would, over time, at least keep pace with inflation, and if possible exceed it.

Investment practices for charitable foundations in the 1960's, when Mrs. Killam wrote her Will, were typically based on the idea of investing for "income" in the traditional sense of interest and dividends. Modern investment techniques, how-

ever, call for maximizing the *overall* returns from capital (i.e., interest, dividends and capital gains). By following this “total return” method, financial managers are typically able to generate higher overall returns than by using older methods. The problem is that, if institutions are permitted to spend only interest and dividends, but not capital gains, their investment policies will naturally follow the older model; whereas if they can spend a portion of realized capital gains as a supplement to interest and dividends, they will feel free to follow the more modern – and more successful – “total return” model.

Thanks to Chief Justice Kennedy’s decision, the Killam Institutions can now follow the newer model.

For the Killam Trusts, the key to the long term success of the “total return” model is, of course, to set annual spending at a level which will ensure their continued capital growth at a rate at least equal to inflation. The Trustees and the Killam Institutions are of one mind on this point, and have been for many years. Together their task is to ensure that the Killam Trusts remain financially healthy in perpetuity, while continuing to yield a steady and growing stream of funds for the benefit of each year’s Killam Programs.



Again this year The Bank of Nova Scotia very kindly sponsored a Dinner in honour of the 1999 Killam Prize winners in Medicine, Science and Engineering. This year’s event, organized as always by the Canada Council (which administers the Killam Prize Program), was held at the Queen Elizabeth Hotel in Montreal on June 16.

The three outstanding scholars honoured this year were:

- ◆ *Dr. Albert J. Aguayo*, McGill University - Medicine
- ◆ *Dr. Walter Hardy*, UBC - Science
- ◆ *Dr. Maurice A. Bergougnou*, University of Western Ontario - Engineering

As in past years, the Bank placed congratulatory ads in Canada's leading newspapers the day after the event, thereby bringing the awards and the winners to the attention of the wider public.

The Killam Prizes, sometimes referred to as "Canada's Nobel Prizes", are indeed the nation's premier awards in these fields. Unlike the Nobels, however, they are given in recognition of accomplishments over the scholar's lifetime, rather than for a particular contribution.

The Trustees are most grateful to the Bank for its continuing support of the Killam Prize Awards Dinner.



Many years ago the Killam Trustees published Douglas How's biography of Izaak Walton Killam, "A Very Private Person", for distribution to Killam Scholars and others. Now we are running out of copies; so we have under review the question whether to republish. The first step was to ask each of the six Killam Institutions whether the book has been well received over the years. The response has been overwhelmingly positive.

With this enthusiastic support, the Trustees are now considering a plan, not just to reprint the existing text, but to add a chapter or two bringing the Killam story up to date. We believe members of the “Killam family” of scholars, as well as the general public, will be interested in the sequel. Nearly 4,000 Killam Scholars, the brightest and the best, have taken up their awards since the first edition was published. Their story, it seems to the Trustees, is every bit as inspiring as that of their patrons, Izaak Walton Killam and Dorothy Johnston Killam.



In the following sections of this Annual Report, we say a bit about the “state of the Killam nation” at each of our six Killam Institutions. We derive this information partly through our own eyes and ears, as we visit each Institution at least twice a year – spring and fall – to do our work as Trustees, following the requirements of Mr. Killam’s Will. But we also rely heavily on the statistical and other detailed information that the financial, administrative and academic officials at each institution produce for our benefit.

This is therefore an appropriate occasion for the Trustees to express their gratitude to all engaged in this task. It is not always easy to find the time to prepare these detailed reports, but they do help us in our task of ensuring that the Killam Programs at each Killam Institution carry out their leading role in “the building of Canada’s future by encouraging advanced study”, to quote from Dorothy Killam’s Will.

One particular feature of our Annual Reports may bear a special word: each year we dwell on the accomplishments of some of the eminent Killam award winners at a couple of the

Killam Institutions. Space limitations prevent us from giving details about the work of scholars at all of them, but by revolving the focus from year to year among the six Institutions we hope to do justice to them all over a three or four year cycle.



DALHOUSIE UNIVERSITY

Dalhousie's Killam Trusts enable the University to maintain five Killam Programs:

- ◆ Killam Memorial Scholarships at the Master's and Doctoral level;
- ◆ Killam Memorial Fellowships at the Post-Doctoral level;
- ◆ Killam Memorial Professorships (Killam Chairs);
- ◆ Assistance to the general scholarship allocations of departments;
- ◆ Dorothy J. Killam Memorial Lecture Series.

The Killam Memorial Scholarship competition for 1999/00 was extremely successful. Thirty-four new scholars joined 43 renewal scholars; of these 77 in total, 38 hold external awards, including 36 from the Natural Science and Engineering Research Council (NSERC) and the Social Sciences and Humanities Research Council (SSHRC). As at the other Killam Universities, these "double winners" have the amount of their external awards topped up to the Killam Scholarship level, and are designated "Honorary Killam Scholars". Natu-

rally, the larger the number of external awards, the further the Killam funds can go. Over the years, Dalhousie has been particularly successful in this regard.

Dalhousie awarded five new Killam Post-Doctoral Fellowships this year, to scholars from the Australian National University, Oxford University, University of Auckland, University of Wollongong and McGill University. They join five continuing scholars now in their second year. Their disciplines range from Physics, Chemistry, Biology and Pharmacology, through Mathematics, to Economics, Political Science and English.

As we reported last year, funding is now available for five Killam Chairs at Dalhousie. Three are filled: *Dr. Mary Anne White*, Materials Science; *Dr. Ian Meinertzhagen*, Neuroscience; and *Dr. Ransom Myers*, Ocean Studies. Searches remain underway for scholars to fill the Killam Chairs in Business Informatics and Petroleum Engineering.

Uniquely among the Killam Universities, Dalhousie holds an endowment given by Mrs. Killam during her lifetime, in addition to those received under her Will. In 1999 Dalhousie used the income from this gift, sometimes called the “Anonymous Donor’s Fund”, to make awards to 202 graduate students in many disciplines throughout the University.

The 1999 Dorothy J. Killam Memorial Lectures examined three aspects of materials science, each spanning time and fields of human endeavour. The theme, “Spirits in the Material World”, was introduced by *Prof. Stephen Sass* of Cornell. He was followed by *Dr. John Gosline* who talked about the links between the zoological function of materials and materials

engineering, in such fascinating substances as spider silk, horse hoof and slug slime. The final lecture was given by *William Garzke, Jr.*, a naval architect who is an expert on the Titanic, on the materials failures that caused the vessel to split open when she struck the iceberg on that fateful night of April 15, 1912.

Two additional awards are made by the Dalhousie Faculty of Science:

- ◆ Faculty of Science Killam Prize, awarded in 1999 to *Dr. Peter Kusalik*, Chemistry, from general operating funds;
- ◆ Faculty of Science Killam Professorships, awarded in 1999 to *Dr. Ray Klein*, Psychology and *Dr. Rebecca Jamieson*, Earth Sciences, funded from the Killam Salary Trust.

Dalhousie's Annual Killam Dinner in honour of its Killam Scholars was held this year at Pier 21, immediately following the Killam Annual Lecture. (Pier 21 is the immigration shed on Halifax Harbour through which over a million immigrants first entered Canada, between 1926 and 1971; it has been converted into a National Historic Site, complete with interactive displays, auditorium and reception hall.) For only the second time (the first was at U of C in 1996), the Deans of Graduate Studies from the other Killam Institutions – which hold their own Killam Dinners each year – were in attendance, along with over 200 invited guests. We are all deeply indebted to Peter Ricketts, Dean of Graduate Studies at Dalhousie, his Assistant, Marsha Hughes, and their staff for an extremely well organized affair, much enjoyed by all.



**MONTREAL NEUROLOGICAL INSTITUTE,
MCGILL UNIVERSITY**

The MNI is a teaching and research institute of McGill University, and one of the most famous and progressive institutes of its kind anywhere. Founded in 1934 by Dr. Wilder Penfield, an eminent neurosurgeon known for his groundbreaking work in epilepsy, the Institute aims to provide the most advanced treatment of diseases of the nervous system, as well as a venue in which basic and clinical scientists can work together to uncover fundamental principles governing nervous system function and disease. Penfield's model for medical research was pioneering in its day, and has been emulated ever since.

The MNI and its clinical partner, the Montreal Neurological Hospital (MNH), afford the unique setting that seamlessly interweaves research, patient care and training. In this environment, clinical and basic-science faculty with differing skills learn from each other and work together toward common goals. Disease-oriented studies inspired by the clinical setting extend from the molecular-cellular level through the diagnosis and treatment of patients; conversely, daily association with neuroscientists helps shape the high-quality patient care for which the hospital is known. To quote Dr. Freda Miller, a Killam Scholar at the Institute: "The MNI is one of the few centres in the world where you could envisage going from molecular biology to systems neurobiology to clinical trials, all in the same place."

The MNI's research and clinical staff consists of approximately 80 faculty members, all of whom hold appointments in McGill's Faculty of Medicine. Research activities are coordinated in 11 separate yet interconnected research units. The

wide variety of skills available in these units permits a multi-disciplinary approach to investigations. In addition, both the MNI and the MNH are training centres for upwards of 150 McGill graduate students, post-doctoral fellows, and medical and surgical residents. In the words of Dr. Donald Baxter, Director Emeritus of the Institute: “There is no better milieu to assure that research findings are brought quickly to the attention of clinicians and that researchers become aware of important clinical questions.”

The Killam Trustees are proud to have the Killam name associated with this world class institute, through the provision of 13 Killam Scholarships to eminent scientific and clinical investigators, and through research endowment support.



THE CANADA COUNCIL FOR THE ARTS

The Canada Council is the administrator of two separate Killam Programs: The Killam Research Fellowship Program, and the Killam Prize Program.

Killam Research Fellowships are awarded to professors in mid career from universities across Canada. Worth approximately \$68,000 a year, and tenable for two years, the Fellowships allow leading Canadian academics to take the release time from teaching duties they need in order to complete important pieces of original research.

For the current year, funds have allowed the award of 14 new Fellowships and 13 renewals, a big improvement over the situation just a couple of years ago when the funds stretched to

only nine new Fellowships. The Council expects to be able to continue to award 14 to 16 Killam Research Fellowships annually in the years to come.

For this year's competition, the Council received 86 applications from professors at 25 universities. The total is down from the approximately 105 to 110 applications in recent years, largely because of the imposition of a more stringent front end control procedure. The problem of "assessor fatigue" spurred the Council's efforts to ensure that those who applied were at a high enough level to have a real chance of winning a Killam Research Fellowship. The Council consulted the university research offices extensively to determine which potential applicants were at the right level, before providing user names and passwords to allow applicants to log on to the Internet-based application system.

All applicants used the Internet system to apply this year, and most found it quite user friendly. Referees and assessors from around the world have passed on highly complimentary comments on the ease of access via the Internet to the files they were asked to assess.

The Canada Council also administers the Killam Prize Program. This year, the value of the Prizes remains at \$50,000 each, but for the coming year this will go up to \$75,000.

The Killam Prizes continue to be awarded to outstanding Canadian scientists, as can be seen from our discussion in the opening sections of this Report.

Carol Bream, Director of Endowments and Awards at the Council, visited 15 universities in eastern Canada during this past year to "spread the word" about the Killam Programs administered by the Council. These visits have proved extremely productive and effective, both in encouraging poten-

tial applicants and in promoting the Council's Killam Programs nationally. The people Carol meets on these visits are universally grateful for the attention and information provided. She plans to make return visits to the western provinces this year, as well as the Ontario and Quebec universities outside Toronto and Montreal.



THE UNIVERSITY OF CALGARY

The U of C has five Killam Programs:

- ◆ The Killam Scholarship Program, providing doctoral scholarships valued at \$20,100 per year for two years, with an additional \$3,000 research allowance and fee differentials for foreign students;
- ◆ Killam Memorial Chairs;
- ◆ Killam Resident Fellows Awards;
- ◆ Killam Visiting Scholar Awards;
- ◆ The Donald N. Byers Memorial Killam Prize.

The U of C awarded seven new “full” Killam Scholarships this year, and renewed five “full” Killam Scholarships for a second year. In addition, nine scholars received “Honorary” Killam Scholarships, the designation given by all of the Killam Universities to scholars who have received external awards, usually from one of the national granting councils, and whose scholarships are then topped up to the Killam level. In the case of the U of C, three of the Honorary Killam Scholars

have received NSERCs, three have received SSHRCs, two have received MRCs, and one has received an Alberta Heritage Medical Research Scholarship.

As reported last year, *Dr. Nigel Shrive* and *Dr. Roy Gravel* have both now taken up their positions as Killam Chairholders at the U of C. Dr. Shrive, an engineer by training, has built a career by applying the principles of structural mechanics to masonry and biological structures. In biomechanics, his interests lie in soft tissues of joints. In particular, he is interested in the structure and function of normal, healing and reconstructed ligaments. Working with colleagues in the Faculty of Medicine, he strives to bring about better functional outcomes to surgical procedures. Osteoarthritis and the mechanics of the interventricular septum of the heart under abnormal loading also hold interest. Dr. Shrive has served as Chair of the Biomedical Engineering Committee for the MRC.

Dr. Gravel is a professor in the Faculty of Medicine, Department of Cell Biology and Anatomy, with cross-appointments in the Department of Biochemistry and Molecular Biology and the Faculty of Kinesiology.

The U of C's Killam Resident Fellowships for faculty members are intended to recognize merit in research, teaching or public service. They provide release time for one term, allowing scholars to complete a piece of research or other academic work free of teaching and administrative duties. Thirteen U of C professors were awarded Killam Resident Fellowships for 1999-2000.

This year the U of C renewed its Killam Visiting Scholar Awards, intended to bring to the University distinguished scholars who, by their presence and participation in research and teaching, will make a significant contribution to the

academic life of the University. Awards are made for either the fall or winter term, and include an honorarium of \$20,000 plus a travel and research allowance of \$3,000. This year's Killam Visiting Scholars are:

◆ *Professor Vyacheslav S. Babkin*, of the Russian Academy of Sciences (Siberian Branch), Institute of Chemical Kinetics and Combustion, Novosibirsk, Russia.

◆ *Professor John O'Connor*, Director, Oxford University Orthopaedic Engineering Centre. Professor O'Connor's field is the biomechanical investigation of locomotion and orthopaedic questions.

◆ *Dr. Jean-Baptiste Roulet*, Associate Professor, Division of Nephrology, Hypertension and Clinical Pharmacology, Oregon Health Sciences University, Portland, Oregon.

Lastly, mention should be made of the Donald N. Byers Memorial Killam Prize, a \$500 award made each year to the Killam Scholar who has written the best research proposal, with emphasis on clarity of expression and completeness. The Prize is named in honour of both the Killams and the late Donald Byers, who was Mrs. Killam's personal solicitor and Managing Trustee of the Killam Trusts for many years. The 1999 recipient is David Mellow, Department of Philosophy.

This fall sees the departure through retirement of Dr. Brian Gaines, Dean of the Faculty of Graduate Studies at the U of C, former Killam Chairholder in the field of Artificial Intelligence, and tireless "Killam booster" at the U of C. It has been a great pleasure for the Killam Trustees to come to know Brian, and his equally distinguished wife, Dr. Mildred Shaw, over the past dozen years or so. To retiring Killam Deans we

present a Nova Scotia Crystal clock with the Killam logo, a small memento of their association with the Killam Program and the Killam Trustees. We hope Brian frequently gazes at his, and remembers the “Killam family of scholars” as warmly as we shall remember him.



UNIVERSITY OF ALBERTA

Dr. Mark Dale, himself a former Killam Scholar (at Dalhousie), is now in his second year as Dean of the Faculty of Graduate Studies and Research and Chair of the Killam Scholarship Committee at the U of A. He has continued the many innovative Killam Programs initiated some years ago at the U of A, including the Killam Annual Professorships and the “Killam Fireside Chat”.

The Killam Annual Professorships are awarded to full-time faculty in recognition of their distinguished scholarship and contributions to the community. As in past years, eight faculty members were so honoured in 1999. Funds for this program are provided by the Killam Salary Fund at the U of A.

The Killam Fireside Chat provides Killam Post-Doctoral Fellows, Killam Chairs, members of the Post-Doctoral Fellowship Selection Committee and external friends of the University an opportunity to meet informally to discuss all aspects of the Killam endowments at the U of A. The event is held once a year, in the fall, and is particularly useful in introducing new Killam Post-Doctoral Fellows to senior members of the University.

The Killam Scholarship Committee considered 113 nominations for the 15 new Killam Doctoral Scholarships awarded this year, which includes two honorary scholarships. Twenty-three Doctoral Scholars, including 17 Honorary Killams, received renewals, for a total of 38 Killam Doctoral Scholars on stipend during the current year.

Five new Killam Post-Doctoral Fellowships were also taken up this year, three by women. Six Killam Post-Doctoral Fellowships were renewed, for a total of 11 at the U of A.

The two Killam Chairholders, *Dr. Valery P. Frolov* of the Department of Physics and *Dr. David Schindler* of the Department of Biological Sciences, continue as the U of A's Killam Chairholders. Many readers of this Report may have come to know something of Dr. Schindler's exploits in a field wholly outside the academic; he is well known in the popular press as a husky dog racer, a sport his whole family enjoys!

The U of A continues to excel on the academic side of the Killam Program, to be sure. But what is perhaps even more remarkable is the excellent financial results it has had over many years. Last year, we reported that the Killam funds held by the U of A had increased by 31% in value, *after* annual expenditures of 5% of market value. This year, the gain has not been as spectacular. Nevertheless, U of A has managed an increase of close to 5% in the market value of its Killam funds, after accounting for annual expenditures – well in excess of inflation.



THE UNIVERSITY OF BRITISH COLUMBIA

Killam resources at UBC make possible four separate programs bearing the Killam name (other UBC programs are, of course, funded by income from the Killam General Endowment Fund, the use of which is unrestricted):

- ◆ Killam Pre-Doctoral Scholarships, worth \$22,000 per year for two years, plus travel allowance;
- ◆ Killam Post-Doctoral Scholarships, now worth \$36,000 plus travel allowance;
- ◆ Killam Faculty Research Fellowships, valued at \$15,000 plus a \$3,000 research and travel allowance;
- ◆ Killam Research Prizes, valued at \$5,000.

Within the Killam pre-doctoral program, significant changes took place last fall, with an increase in the value of the scholarship from \$20,000 to \$22,000. Also, available funds have permitted an increase in the number of scholars. In fact, there are now 49 pre-doctoral scholars, of which 35 are new scholars and 14 are renewals. The 35 new scholars include 16 Honorary Killam Scholars.

Twelve Killam Post-Doctoral Fellowships were offered this year, up from a low of six or seven three years ago. Dr. Dianne Newell, Chair of the Post-Doctoral Scholarship Committee, advises that the UBC website has made a big difference in attracting post-doctoral scholars.

The winners of UBC's Killam Faculty Research Fellowships and Killam Research Prizes are chosen by two committees, one for the sciences and another for the humanities. These awards, being of one year's duration only, are made out of the

Killam General Endowment Fund, spending from which is unrestricted by the terms of Mrs. Killam's Will. Five Killam Research Fellowships and ten Killam Research Prizes were awarded this year.

UBC is particularly proud of *Dr. Walter Hardy*, winner of this year's Canada Council Killam Prize in Science. Dr. Hardy is a native of Vancouver and a graduate of UBC, becoming a full professor of physics there in 1976. During his career he has frequently been a visiting professor in France, Germany and the United States. Dr. Hardy has made pioneering contributions in condensed matter physics, often through the development and application of novel techniques to attack specific physical problems. More recently, in studies of high temperature superconductors, Dr. Hardy and his collaborator were able to increase greatly the accuracy of magnetic penetration depth and surface resistance measurements, through the use of superconducting microwave resonators. Dr. Hardy has been the recipient of many other awards, including the Rutherford Memorial Scholarship (1964), the Alfred P. Sloan Fellowship (1972-74), the Canadian Association of Physicists' Hertzberg Medal (1978), NSERC's Steacie Prize (1978), the Canadian Association of Physicists' Medal of Achievement (1993), and various UBC prizes – not to mention a Killam Research Fellowship from the Canada Council (1984-86). In 1980, he was elected to the Royal Society of Canada.



As always, we are deeply indebted to the many faculty members at Canadian universities who take valuable time away from their own work to help in the Killam Scholarship and Prize selection process. This work is, quite simply, the bedrock upon which the excellence and good standing of the Killam Programs rest.

Finally, we say again to all of this year's Killam Scholarship and Prize winners – to whom we have already expressed this sentiment in person at the various dinners and other gatherings at which their achievements have been celebrated – thank you so much for the honour you do the Killam name.



John H. Matthews
W. Robert Wyman
M. Ann McCaig
George T.H. Cooper, Q.C., Managing Trustee

Trustees of the Killam Trusts
Halifax, Nova Scotia

November, 1999

KILLAM AWARD WINNERS

1999

LISTED BY INSTITUTION

UNIVERSITY OF ALBERTA

Killam Predoctoral Scholars

New Scholars

Choboter, Paul; Mathematical Sciences
Coltart, Don; Chemistry
Gamble, Diane; Faculty of Nursing
Garneau, Sylvie; Chemistry**
Hilderman, Trevor; Mechanical Engineering
Jack, Katharine; Anthropology
Johnson, Matthew; Mechanical Engineering
Kanuka, Heather; Educational Policy Studies
Keyghobadi, Nusha; Biological Sciences
Lin, Zhong; Comparative Literature, Religion and Film/Media Studies
Nieguth, Tim; Political Science
Rubinoff, Kailan; Music**
Suddaby, Roy; Business
Thormann, Markus; Biological Sciences
Todd, Christopher; Renewable Resources

Renewal Scholars

Abbott, Sean; Biological Sciences
Bac, Murat; Philosophy
Binsted, Gordon; Psychology**
Colpitts, George; History and Classics
Copland, Luke; Earth and Atmospheric Sciences
Crane, Patricia; Biological Sciences
De Sousa, Grace; English**
DiBattista, Jeffrey; Civil and Environmental Engineering
Friesen, Christine; Psychology**
Gobbett, Brian; History and Classics

** Honorary Killam Scholar - A designation given to scholars who have received an external award and whose qualifications entitle them to a Killam Scholarship and to all the benefits accorded to Killam Scholars.

Jacques, Melissa; English**
Khoo, Hong Aik; Civil and Environmental Engineering
Lee, Gregory; Mathematical Sciences
Leipert, Beverly; Nursing
McFarlane, Douglas; Biological Sciences**
Musacchio, Alberto; Anthropology
Noble, Brian; Anthropology
Pratt, Vera; Agricultural, Food and Nutritional Science
Robinson, Lindsay; Agricultural, Food and Nutritional Science
Thue, Laura; Sociology**
Tourangeau, Ann; Nursing**
Warburton, Darren; Physical Education and Recreation
Wong, Yoke Sum; Sociology

Killam Postdoctoral Fellows

New Scholars

Black, Fiona; Comparative Literature, Religion and Film/Media Studies
Dayanandan, Selvadurai; Renewable Resources
Dickinson, Jennifer; Modern Languages and Cultural Studies
Matter, Stephen; Biological Sciences
Simons, Karen; English

Renewal Scholars

Cheng, Liying; Educational Psychology
Nevins, Monica; Mathematical Sciences
Robertson, Ian; Biological Sciences**
Ssorin-Chaikov, Nikolai; Anthropology
Vinebrooke, Rolf; Biological Sciences**
Wall, Glenda; Sociology

Killam Annual Professors

Almon, Bert; English
Baker, Glen; Psychiatry
Hinings, C.R.; Business
Knaus, Edward; Pharmacy and Pharmaceutical Sciences
Liefers, Victor; Renewable Resources
Shogun, Debra; Physical Education and Recreation
Taylor, Gregory; Biological Sciences
Tomczak-Jaegermann, Nicole; Mathematical Sciences

Killam Chairs

Frolov, Valery; Physics
Schindler, David; Biological Sciences

THE UNIVERSITY OF BRITISH COLUMBIA

Killam Predoctoral Scholars

New Scholars

Abedi-Djourabtchi, Amir-Hassan; Political Science
Archibald, Diane; Interdisciplinary Studies**
Brodsky, Alex; Computer Science**
Browne, Annette; Nursing**
Caille, Sebastien; Chemistry**
Chapman, Valerie; Educational Studies**
Chow, Jennifer; Medical Genetics**
Conway, Lucian; Psychology
Crowley, Christine; Pharmacology and Therapeutics**
Elaschuk, Cory; Educational Psychology and Special Education
Erol, Berna; Electrical and Computer Engineering**
Fabry, Mikulas; Political Science
Gillon, Carrie; Linguistics
Haring, Michelle; Psychology**
Hinke, Simon; Physiology**
Holmes, Mark; Mathematics
Humphreys, Elyn; Soil Science**
Isaac, Barbara; Educational Studies**
Jeffery, Christopher; Geography
Karnizova, Lilia; Economics
Kienast, Markus; Earth and Ocean Sciences
Linds, Warren; Language Education
Loucks, Scott; Pharmaceutical Sciences
Lynn, Francis; Physiology**
Mountz, Alison; Geography
Nelson, Max; Classical Studies
Ng, Nathan; Mathematics
O'Connell, Lisa; Forestry
Pufahl, Peir; Earth and Ocean Sciences
Rae, Ian; English**
Rundle, Howard; Zoology
Vasudevan, Alexander; Geography**
Verdier, Genevieve; Economics
Visser, Troy; Psychology**
Waples, Heather; Economics

Renewal Scholars

Audet, Julie; Chemical Engineering**
Branzei, Oana; Commerce
Cooper, Kendra; Electrical Engineering
Dautovich, Nancy; Sociology**

Desbiens, Caroline; Geography**
Dimairo, Simon; Electrical Engineering
Dobozy, Tamas; English**
Dragan, Nicolae; Economics
Ferguson, Heather; Zoology
Fudge, Douglas; Zoology
Furness, Nancy; Plant Science**
Hahn, Mari; Music
Pelletier, Marie-Hélène; Counselling Psychology**
Ralph, Steven; Biochemistry**
Zechel, David; Chemistry**

Killam Postdoctoral Fellows

New Scholars

Andersen, Denise; Chemistry**
Benzaquen, Adriana; History**
Brumell, John; Biotechnology**
Carrick, Jill; Interdisciplinary Studies
Glassman, Jim; Geography
Iskin, Ruth; Fine Arts
Jain, Sarah; Law
Leung, Helen; Asian Studies
Noble, Brian; Anthropology and Sociology**
Sandercock, Brett; Forest Sciences
Tagliacozzo, Eric; History
Zanette, Liana; Zoology

Renewal Scholars

Alderson, Kai; International Relations
Cook, Meira; English
Kezer, Zeynep; Architecture
Klassen, Anne; Paediatrics
Murashov, Vladimir; Chemistry**
Williams, Spencer; Chemistry

Killam Faculty Research Fellowships

Anderson, Joan; Nursing
Buffett, Bruce; Earth and Ocean Sciences
Green, David; Economics
Kallel, Samir; Electrical and Computer Engineering
McIntosh, Lawrence; Chemistry

Killam Faculty Research Prizes

Brinton, Laurel; English
Clarke, Garry; Earth and Ocean Sciences
Dalziel, Pamela; English
Echard, Sian; English

Gosline, John; Zoology
Haynes, Charles; Biotechnology
Sarkonak, Ralph; French
Scheffer, John; Chemistry
Snoeyink, John; Computer Science
Ward, Peter; History

Killam Teaching Prizes

Bomke, Art; Agricultural Sciences
Buffett, Bruce; Earth and Ocean Sciences
Bond, Greg; Electrical and Computer Engineering
Cavers, Ian; Computer Science
Farquhar, Keith; Law
Gardiner, Daniel; Commerce and Business Administration
Gass, Lee; Zoology
Gregory, Derek; Geography
Karwowska, Bozena; Germanic Studies
Kelly, Deirdre; Educational Studies
Krölller, Eva-Marie; English
Lee, Steven; History
Ley, David; Geography
Matthews, Jaymie; Physics and Astronomy
Mayer-Smith, Jolie; Curriculum Studies
McKay, Sherry; Architecture
Mosca, Paul; Classical, Near Eastern, and Religious Studies
Nelson, John; Forestry
Pudek, Morris; Pathology
Qayumi, Karim; Surgery
Riggs, Wayne; Pharmaceuticals and Biopharmaceutics
Webber, William; Anatomy
Wyatt, Christopher; Oral Health Sciences

THE UNIVERSITY OF CALGARY

Killam Predoctoral Scholars

New Scholars

Blackwell, James; Chemistry
Brask, Justin; Chemistry**
Burroughs, Lynn; Computer Science**
Chilton, Lisa; Cardiovascular and Respiratory Sciences**
Damian, Daniela; Computer Science
Jones, Ginny; Biochemistry and Molecular Biology**
Juschka, Barbara; Educational Psychology
Kawash, Jalal; Computer Science
Lackenbauer, Whitney; History**

Matthews, S. Leigh; English**
Mellow, David; Philosophy**
Moorhouse-Herx, Leonie; Neuroscience**
Musiani, Marco; Environmental Design
Spasov, Miroslav; Music
Su, Yu-Ling; Physics and Astronomy
Tuck, Stephanie; Cardiovascular and Respiratory Sciences**

Renewal Scholars

Bateman, David; English
Bondy, Eloise; Clinical Psychology
Gokaraju, Ramakrishna; Electrical and Computer Engineering
Mora, Santiago; Archaeology
Wilkes, Barbara; Anthropology

Killam Postdoctoral Fellows

Williams, Neal; Biological Sciences

Killam Resident Fellows

Behie, Leo; Chemical and Petroleum Engineering
Bowal, Peter; Management
Buss, Helen; English
Drury, Shadia; Political Science
Foreman, Charles; Music
Hara, Kimie; Political Science
Herzog, Walter; Kinesiology
Hexham, Irving; Religious Studies
Johnson, Edward; Biological Sciences
Konnert, Mark; History
Rowney, Julie; Management
Rudy, Susan; English
Sniatyki, Jędrzej; Mathematics and Statistics

Killam Visiting Scholars

Babkin, Vyacheslav; Chemical and Petroleum Engineering
O'Connor, John; Orthopaedic Biomechanics
Rouillet, Jean-Baptiste; Pharmacology and Therapeutics

The Donald N. Byers Memorial Killam Prize

Mellow, David; Philosophy

Killam Chairs

Gravel, Roy; Medicine and Kinesiology
Shrive, Nigel; Civil Engineering

THE CANADA COUNCIL

Killam Research Fellows

New Fellows

Bodéüs, Richard; Philosophy - Université de Montréal
Carlberg, Raymond; Astronomy - University of Toronto
Clarkson, Stephen; Political Science - University of Toronto
Code, Lorraine; Philosophy - York University
Davies, Peter; Biology - Queen's University
Grace, John; Chemical and Bio-Resource Engineering - University of British Columbia
Lemire, Beverly; History - University of New Brunswick
Milman, Pierre; Mathematics - University of Toronto
Robson, Arthur; Economics - University of Western Ontario
Sutton, D. Mark; Physics - McGill University
Villeneuve, Paul; Aménagement - Université Laval
Waddams, Stephen; Law - University of Toronto
Winnik, Mitchell; Chemistry - University of Toronto
Winston, Mark; Biological Sciences - Simon Fraser University

Renewal Fellows

Bernath, Peter; Chemistry - University of Waterloo
Courtney, John; Political Science - University of Saskatchewan
De Bujanda, J. Martinez; History - Université de Sherbrooke
Ericson, Richard; Law, Anthropology and Sociology - University of British Columbia
Innes, Christopher; English - York University
James, Noel; Geological Sciences - Queen's University
John, Sajeev; Physics - University of Toronto
Kolb, Bryan; Psychology and Neuroscience - University of Lethbridge
McCalla, Douglas; History - Trent University
McDonald, Arthur; Physics - Queen's University
Moffat, Anthony; Physics - Université de Montréal
Murty, Ram; Mathematics - Queen's University
Schrobilgen, Gary; Chemistry - McMaster University
Terzopoulos, Demetri; Computer Science - University of Toronto

Killam Prize Winners

Aguayo, Albert; Neuroscience - McGill University
Bergougnou, Maurice; Chemical and Biochemical Engineering - University of Western Ontario
Hardy, Walter; Physics and Astronomy - University of British Columbia

DALHOUSIE UNIVERSITY

Killam Predoctoral Scholars

New Scholars

Agbakwa, Shedrack; Law
Anderson, Ardis; Philosophy
Ban, Fuqiang; Chemistry
Beauregard-Tellier, Frederic; Economics
Bejder, Lars; Biology**
Bennett, Evelyn; English**
Boehnke, Susan; Psychology**
Chiasson, Theodore; Computer Science**
Dawe, Sandra; Microbiology and Immunology**
Diamond, Eli; Classics
Edgar, Scott; Philosophy
Emsley, Sarah; English**
Gatti, Maria; German Studies
Goodyear, Elizabeth; Political Science
Hetherington, Craig; Sociology and Social Anthropology
Ibhawoh, Bonny; History
Judge, Elizabeth; Law
Lapr , Claude; Sociology and Social Anthropology
Liu, Xuejun; Pharmacology
Martin, Colleen; Resource and Environmental Studies**
Mastnak, Mitja; Mathematics and Statistics
Mgbeoji, Ikechi; Law
Morris, Angie; Economics
Nikcevic, Irena; Anatomy and Neurobiology
Ottensmeyer, Andrea; Biology**
Ove, Peter; International Development Studies
Ruyak, Margaret; Psychology
Shi, Chanjuan; Pharmacology
Sparkes, Sandra; Psychology**
St.-Maurice, Martin; Biochemistry**
Wang, Jingtian; Psychology
Whittle, Carrie-Ann; Biology
Yahaghi, Reza; Mathematics and Statistics
Zheng, Fenghua; Electrical and Computer Engineering

Renewal Scholars

Arch, Jakobina; Biology
Barry, Shauna; English**
Bernard, Guy; Chemistry
Brown, William; Psychology**
Bryce, David; Chemistry**
Clarke, Matthew; Sociology and Social Anthropology

Comeau, Nancy; Interdisciplinary**
Day, Rosalyn; Biology**
Dorrington, Peter; French**
Flint, John; Sociology and Social Anthropology**
Gee, Myrlene; Chemistry**
Green, Catherine; English**
Hancock, Jeff; Psychology**
Hayman, Laura; French**
Henderson, Stephen; Oceanography
Hiltz, Margot; Microbiology and Immunology**
Johnson, Brian; English**
Kynoch, Gary; History**
Lancelot, Sandy; Chemistry**
Larochette, Béatrice; French
Laycock, Anitra; Classics**
MacLaren, Douglas; Chemistry**
Maddox, Kelly-Anne; French**
Mangion, Bernardino; Chemistry
Mathur, Sunita; Physiotherapy
McCullough, Steven; English**
Mohammadabad, Saeed; Computer Science
Obrovac, Marc; Physics
O'Donnell, Allyson; Biochemistry**
O'Neill, Melanie; Chemistry**
Rendell, Luke; Biology
Richard, Martin; Biochemistry**
Robertson, Virginia; Physiotherapy
Shipley, Brian; History**
Shmulevitz, Maya; Microbiology**
Simpson, Christy; Philosophy**
Thompson, Carol; Psychology**
Tomsons, Kira; Philosophy**
Waldman, Suzanne; English**
Wang, Yushan; Pharmacology
Widmer, Alexandra; Sociology and Social Anthropology
Xiong, Wei; Pharmacology
Zhou, Juan; Microbiology

Killam Postdoctoral Fellows

New Scholars

Gauld, James; Chemistry
King, Andrew; English
Liu, Wei-Jiu; Mathematics
MacGibbon, Geraldine; Pharmacology
Ricciardi, Anthony; Biology

Renewal Scholars

Cheng, Zhao-hua; Physics

Harty, Siobhan; Political Science
Islam, Towhidul; Economics
Janara, Laura; Political Science
Rösler, Roland; Chemistry

Faculty of Science Killam Professors

Bowen, Anthony; Oceanography
Boyd, Russ; Chemistry
Burford, Neil; Chemistry
Coley, Alan; Mathematics, Statistics and Computing Science
Hall, Brian; Biology
Jamieson, Rebecca; Earth Sciences
Klein, Ray; Psychology
Kreuzer, Hans; Physics
Meinertzhagen, Ian; Psychology
Mitchell, Donald; Psychology
Rusak, Benjamin; Psychology
Wasylishen, Roderick; Chemistry

Faculty of Science Killam Prize

Kusalik, Peter; Chemistry

Killam Chairs

Meinertzhagen, Ian; Psychology
Myers, Ransom; Ocean Studies
White, Mary Anne; Chemistry; Physics

MONTREAL NEUROLOGICAL INSTITUTE

Killam Scholars

Alonso, Angel
Arnold, Douglas
Barker, Philip
Durham, Heather
Guitton, Daniel
Hastings, Kenneth
Holland, Paul
Miller, Freda
Pike, Bruce
Sadikot, Abbas
Shoubridge, Eric
Stifani, Stefano
Thompson, Christopher

Killam Professors

Karpati, George
Wolfe, Leonhard

Dorothy J. Killam Professor

Milner, Brenda

