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Included with this issue of *At Guelph* are inserts from the Macdonald Stewart Art Centre and Bookshelf Cinema.

Ice Storm Closes Colleges

KEMPTVILLE AND ALFRED agricultural colleges were forced to close their doors last week following the crippling ice storms that hit eastern Ontario and Quebec. Heat, electricity and telephone service were lost to both campuses, which had to cancel the expected start of classes Jan. 12.

The colleges spent several days in the dark before portable generators arrived on the weekend. Residences at both campuses were transformed into emergency shelters for local residents and the more than 150 armed forces personnel who arrived to help with the disaster. As of *At Guelph* press time Jan. 12, dependable phone service and a reliable source of electricity were still absent, and it was expected that classes would not begin before Jan. 19.

With the loss of local phone service in eastern Ontario, U of G established a phone message service last Friday on behalf of both Alfred and Kemptville, providing information updated daily. The number is 519-767-5060.

Jocelyne Sarault, acting director of Alfred College, says that although this is "not an experience we'd ever want to repeat, it has been very revealing. We've learned how dependent we are on man-made elements of our lives, like electricity. And at the same time, we've discovered things about ourselves. On that note, I congratulate all the staff here at the college, who have shown wonderful co-operation and a cheerful attitude, and worked extremely hard to keep things going here and to help out in the community."



A Boost for Immunity

Nutritional sciences professor Bill Woodward and research assistant Lyn Hillier are studying how plant oils with different fat compositions promote healthy immune responses in young mice. Woodward is also part of a team that has earned kudos for a new blood-sampling technique for lab animals. See stories on page 6. PHOTO BY MARTIN SCHWALBE

Economic Outlook Disappointing for Ontario Universities

Funding 'increase' is a cut in real terms

PRESIDENT MORDECHAI ROZANSKI says he is disappointed with the two-year funding allocation for post-secondary education announced by Ontario Finance Minister Ernie Eves Dec. 15, 1997.

"I am extremely disappointed by the minister's announcement," says Rozanski. "The executive heads of Ontario universities did everything possible to make it very clear to the government that the restoration of adequate public funding for universities was critical to ensure both accessibility and quality of education. Ontario has for some time ranked 10th among the 10 provinces in government funding for universities. As a consequence of this announcement, that's where we will remain — dead last."

For the first time, the provincial government has "bundled together" the funding envelopes for post-secondary education operating grants

and the Ontario Student Assistance Program (OSAP). Although the finance minister announced a budgetary increase to colleges and universities of \$30 million in 1998/99 and \$50 million in 1999/2000, much of this extra funding will probably be needed to cover the increased cost of OSAP, leaving operating grants unchanged, Rozanski says.

Pay equity grants may also be cut. Figures provided by MET indicate that this could result in an additional decrease of one-half of one per cent in U of G's operating grant.

Over the past four years, funding for postsecondary education has declined almost 25 per cent, with the largest cut — 15 per cent — coming via the provincial government's Common Sense Revolution over the past year, notes Rozanski. The current level of Ministry of Education and Training (MET) grant funding — and the level proposed for the next two years — represents less than half of U of G's total operating budget, he says.

"We are moving from being a publicly funded university to being a publicly assisted university. And the consequences for students in terms of accessibility, rising debt load and quality of education remain a matter of grave concern to me."

Rozanski says it's important to understand that even after painful retrenchment and budget cuts, the University's costs are unavoidably rising. "Increases in compensation for employees carry with them significant ongoing costs that compound from year to year. The University believes that these increases were essential, but must now find ways to cover these base increases. Inflation will also be a factor. Another example of these unavoidable cost increases is the effect that the decline in the value of the Canadian dollar has on the library acquisitions budget. In this context, the government's decision, which claims to be a zero-per-cent increase for 1998/99 and a one-per-cent increase for 1999/2000, may actually represent a cut in real terms unless these problems are resolved.

Rozanski adds that both he individually and COU collectively are pressing for a favorable clarification of these points, but that even at zero per cent and one per cent, there will

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Due South Looks North

Guelph aims to increase international student presence by end of century

GUELPH'S STUDENT recruitment program is feeling the warmth of some southern exposure.

U of G is one of a few first-rank Canadian universities whose international recruiting efforts have been profiled recently in several prominent U.S. newspapers. Sharing the spotlight with universities such as McGill, Queen's and Toronto, U of G has received coverage in *The Chronicle of Higher Education* (Oct. 24), *Chicago Tribune* (Nov. 9), *Wall Street Journal* (Nov. 26) and *Cincinnati Post* (Dec. 29).

The feature stories focus on Canadian recruitment efforts south of the border, but the United States is just one of a number of areas targeted by U of G's international recruitment plan.

"We'd like to increase the number of international students coming to Guelph from around the globe," says president Mordechai Rozanski. "And at the national level, attracting international students is a stated priority of both the Association of Universities and Colleges of Canada and the federal government's Department of Foreign Affairs and Trade."

According to the Canadian Bureau for International Education, international student enrolment at the graduate level across Canada declined 18.5 per cent from 1992/93 to 1995/96 (the most recent year for which figures are available), part of an overall erosion of international student numbers at universities.

The decline is evident at U of G, where international enrolment has fallen off in recent years. In fall 1982, 10 per cent of undergraduates and 19.7 per cent of graduate students were international students. By fall 1997, those figures had dropped to 2.5 per cent and 11.2 per cent respectively.

"Taken across Canada or just here at Guelph, we need to reverse that trend," says Rozanski.

Which is why in 1995, the University's Strategic-Planning Commission identified internationalism — of which enhanced international recruitment is part — as one of five strategic directions Guelph should take. To reclaim some of the lost ground, Senate has supported a recommendation that would increase the international presence on cam-

pus by the year 2000, with targets set at increasing the number of international graduate students by half and doubling the number of undergraduates.

"What we're looking for is a measured incremental increase in international enrolment," says registrar Chuck Cunningham. "There is built-in capacity for steady growth as part of a multi-point plan to reach out to students around the world."

Practical initiatives have followed. As a first step, tuition fees for international graduate students were cut by almost 50 per cent in 1996, making them the lowest in the province. More recently, the Office of Registrarial Services commissioned a recruitment video for potential applicants in East Asia. Produced in Teaching Support Services by Prof. Ron Stoltz, Landscape Architecture, the 18-minute video will be distributed to Canadian education centres in Malaysia, Singapore, Thailand and Hong Kong. Efforts in the region began last year when Rozanski and Cunningham visited Hong Kong to encourage interest in U of G. At the

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SENATE REPORT

Revised MET budget presented at last meeting of 1997

CHANCELLOR LINCOLN ALEXANDER was on hand for Senate's final meeting of 1997 on Dec. 9. Alexander told senators he was "delighted" to be staying on as U of G's chancellor for another two years and said he shared their pride and joy in the University's

growing reputation for excellence, as evidenced by its recent second-place ranking among comprehensive universities in *Maclean's* magazine.

Alexander also lauded senators for their dedication and spirit over the past year.

Senators received for information the revised 1997/98 Ministry of Education and Training operating budget.

John Miles, assistant vice-president (finance), presented highlights of the revised budget, stressing that there are always fluctuations and that it's possible the provincial grant will be slightly less than expected.

U of G does not know the final grant figures until the end of the fiscal year, he said. Funding to offset pay equity costs, for example, could be less than anticipated.

Miles noted that U of G has not budgeted for a reduction and remains "cautiously optimistic" that a clawback will not be necessary during the 1997/98 fiscal year. (For

an update on the provincial economic outlook, see page 1.)

In Board of Undergraduate Studies (BUGS) business, Senate approved the continuation of the Latin American semester for five years, with the number of offerings to be determined by funding. Offered jointly with the University of Saskatchewan, the program began in the winter of 1997.

In addition, Senate accepted a proposed continuation-of-study model for associate diploma programs based on program averages.

Several proposed revisions to grading policies for undergraduate programs were also presented, but after much discussion, these were referred back to BUGS for final

revision before being approved by Senate.

Senate approved the closure of U of G's collaborative graduate program in plant genetics, which was launched in 1991. The Board of Graduate Studies noted that the program has generated little interest despite efforts to advertise and promote it. Three students are currently registered in the program.

Senate also approved three revisions to the criteria for non-degree credit certificate programs, as proposed by the Senate Committee on Open Learning.

The changes are aimed at increasing flexibility in the open learning system to better serve the needs of external clients.

Brochure Captures Imagination

Continued from page 1

same time, they appointed Guelph graduate Kallista Wong to act as a recruitment "ambassador" in Hong Kong, a job she has taken on with dedication. Further recruitment visits to Asia are planned this year.

"Clearly, bright minds from the four corners of the globe contribute immeasurably to the quality and diversity of this institution," says Rozanski. "But first, we have to get them here. They have to know who, what and where we are. It is our responsibility to show prospective applicants that what they will take away from U of G is a world-class education that will stand them in good stead their entire lives."

Rob Stevens will testify to that. He received a B.Sc. in human kinetics from Guelph in 1985 and is now vice-president, Global Loans Syndications, with Merrill Lynch in New York City.

"I went from Guelph to California to work with a team of cardiologists," says Stevens. "What I took with me was a tremendous human biology background, thanks to U of G. My interest in business started at the University when I handled the sales and advertising for the annual human kinetics symposium. So later I went on to do my MBA and then was recruited by Merrill Lynch. The thing I would tell international students thinking of Guelph is that it puts you in an advantageous position in a global environment. At the interview stage—and in my day-to-day relations with clients—I'm able to capitalize on having experience in an international environment, of being conversant in international current affairs. My Guelph degree was highly transportable."

Third-year women's studies student Erin Kirkwood is counting on it. One of the initial reasons she came to Guelph from Cincinnati was the cost, but she believes that along

the way, her world view has been enlarged by studying in Canada.

"The cost was equal to or better than the U.S. universities I had been accepted to, so I chose Guelph. I suppose in high school classes back home, we only really learned one national viewpoint. What I appreciate here are the different historical perspectives. It opens your eyes to the fact that there's more than one view of events. And overall, I think the level and quality of education at U of G are equal to or better than that of some small private universities in the United States, which are perhaps better known."

Home in Ohio for the Christmas break, Kirkwood was photographed in a U of G sweatshirt for the *Cincinnati Post* feature on Canadian university recruiting.

Despite the media attention, the numbers show that the cross-border traffic is largely one-way. Some 3,000 to 4,000 Americans study in Canada, compared with 23,000 Canadians at colleges and universities in the States.

Cunningham sees no reason why more U.S. students don't follow in Kirkwood's footsteps and look north.

"U of G's academic ties with the United States are already there," he says, noting that 236 of Guelph's faculty have at least one degree from an American university and that 2,300 U of G alumni live in the United States, the highest number outside Canada. "We believe that Canadian and American students benefit from knowing each other better."

The most visible vanguard of the University's U.S. effort has been the "So You Think You Know Canada, Eh?" color brochure featuring the face of a chilled, teeth-chattering, parka-clad student on the cover. The brochure has apparently captured the imagination of editors and reporters alike, who have used the

cover artwork extensively to accompany their articles. Prepared by the Office of Registrarial Services, 50,000 copies of the brochure were mailed out to U.S. students in Grades 10 and 11 last May, resulting in about 5,000 replies requesting more information. By all standards, this is considered a high response rate.

Additional mailings to the respondents have occurred, along with visits by admissions staff to targeted areas. These efforts have resulted in numerous campus visits by prospective applicants, some from as far away as Texas.

BY ALEXANDER WOOLEY

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FOOD SCIENCE CHAIR SOUGHT

A selection committee has been established for the position of chair of the Department of Food Science. Chaired by OAC dean Rob McLaughlin, the committee consists of food science professors Robert Lencki, Ron Subden and Yukio Kakuda; Prof. John Walsh, acting director of HAEA; Prof. Bruce Holub, Human Biology and Nutritional Sciences; Wendy Bauer, Animal and Poultry Science; and graduate student Milena Corredig. The committee invites applications and nominations for the position, which is available May 1. The position is restricted to tenured U of G faculty. Applications should include a curriculum vitae and names of three referees and should be submitted to McLaughlin by Feb. 1.

UNITED WAY PASSES TARGET

The 1997 campus United Way appeal raised \$200,918, well above its goal of \$186,400. Donations are still being accepted for the 1997 tax year. On Dec. 8, Hospitality Services catered a reception for United Way campus volunteers and committee members. Karen Kovats of Human Resources received the annual UW volunteer award. Anil Shrestha, a postdoctoral student in the Department of Crop Science, won the grand prize of a one-week Caribbean holiday for two donated by Ruth Golding of Golding Travel.

Other final prize winners were Elaine Cook, Clinical Studies, who won a cordless phone donated by fonorola and U of G Telecommunications; Martina Storey, Human Resources (fitness tag from the Department of Athletics); retiree Irene Nairn (massage from South City Physio); Jan Williams, Human Resources (\$50 gift certificate from Two George's Tavern); and Dean Louttit, Horticultural Science (shoes from Billings Orthotics and Footwear).

WINTERFEST '98 GEARS UP

Landscape architecture students will hold their annual Winterfest design conference Jan. 29 and 31. This year's theme is "City: New Visions for Urban Environments," focusing on urban open space design and planning. The conference will include guest speakers such as John Sewell and Michael Hough, panel discussions, workshops and a design charette.

IN MEMORIAM

Retired food science professor Delmar Biggs died Dec. 5 at age 83. An MSA graduate of OAC, he taught at Guelph from 1948 to 1979. He is survived by his wife, Jean; four children, Patricia Brown, Paul and Judd of Guelph and Donna of Nanaimo, B.C.; seven grandchildren; and two great-grandchildren. A tree will be planted in his memory Sept. 20 at 2:30 p.m. in the Wall-Custance Memorial Forest at the Arboretum.

Dogs Chow Down on Purina's Generosity

OVC receives two-year supply of pet food for animals housed on campus

FOR TWO YEARS, dogs at U of G will be chowing down on Purina's top-of-the-line dog food... for free.

Ralston Purina Canada has donated a two-year supply of high-quality maintenance and prescription pet foods to Guelph for animals housed at the Veterinary Teaching Hospital and Animal-Care Services.

Each year, the University uses more than 37,258 kilograms of maintenance and prescription dog food and 13,337 kg of cat food.

Besides offering substantial savings to OVC, Purina's gift will bring other benefits.

"Now we'll be able to feed all of the University's cats and dogs the same high-quality food brand," says Denna Benn, director of Animal-Care Services. "That's good science and that's good health."

Purina's maintenance diets are targeted at healthy dogs and cats; the prescription diets are for animals with clinical conditions such as heart problems and obesity.

"We're a progressive company with unique formulas that can meet the needs of almost any animal," says Lisa Davidson, Purina's project manager, nutritional services. "Since we're highly involved with research, we continue to learn and make improvements to our products."

Davidson says the company's new partnership with U of G will also give Purina unique opportunities to work with the students, faculty and staff of OVC and veterinarians.

A plaque to acknowledge Purina's generosity will be placed in OVC's small-animal clinic.

Another company, Iams, will be



Riggs the dog stands guard over a bag of pet food donated to OVC by Ralston Purina. From left are Denna Benn of Animal-Care Services, Lisa Davidson of Purina and Mimi Arighi of the Veterinary Teaching Hospital.

supplying animal food to U of G when Purina's food can't meet an animal's needs or when there's a palatability problem. After two years, the roles of Purina and Iams will switch, with Iams becoming the major supplier.

"This is a very positive situation,"

says Hans Gelens of the small-animal clinic. "We're all looking forward to both the savings and nutrition expertise that these two companies will be providing to the University."

BY JENNY TYE
OFFICE OF RESEARCH

Company support vital for animal care at U of G

Company sponsorship at U of G isn't a new phenomenon, but it's a vital one — especially in the animal-care business.

Over the last three years, Effen Foods Ltd (Waltham's Diets) has donated maintenance and prescription diets for OVC's patient and teaching animals, and Hills Pet Nutrition Inc., Veterinary Medical Diets and Iams donated prescription diets. Hills has also supplied Animal-Care Services with maintenance feeds at a reduced cost

over the last few years.

"Sponsor generosity for our in-patient, teaching and research cat and dog feeding programs is extremely important," says Mimi Arighi, director of the Veterinary Teaching Hospital.

"As more cutbacks are made each year, it would be impossible to keep our services at the strength and excellence we're required to keep if it weren't for outside company support."

University to Examine How Revenues Can Increase

Continued from page 1

be a substantial gap between the money the institution needs and the money available.

The Dec. 15 announcement gives boards of governors at colleges and universities the option to increase tuition fees by up to 10 per cent in 1998/99 and another 10 per cent in 1999/2000, where they deem it necessary to maintain the quality of students' programs. If colleges and universities choose to increase fees, they are required to set aside 30 per cent of any new tuition fee revenue to provide assistance to students in need.

The government also announced that fees will be deregulated for graduate and professional programs. It's not clear, however, what is meant by professional programs. One major question, for example, is the status of first-entry professional programs. The ministry says it will provide further details later this month.

Prior to the minister's announcement, U of G's Enrolment Management Committee, chaired by graduate studies dean Alastair Summerlee, was looking at revenue-generating enrolment strategies, particularly to help meet increased costs in the face

of continued government disinvestment. The committee is examining the implications of increased enrolment and is mindful of student concerns about tuition fee levels, Summerlee says.

He notes, however, that U of G has "undergone a series of very substantial cuts and expenditure reductions over the past several years. There are very few options left that would not have a major negative impact on the quality of teaching and research at this institution."

Accordingly, the administration is beginning its financial planning for

1998/99 with an examination of how revenues can be increased, including increased levels of enrolment, but other options are also being explored.

Whatever the outcome of these deliberations, the president is clear that rising tuition and continued government disinvestment cannot be the long-term solution.

"We will continue to actively and aggressively push the government to make long-overdue strategic investments in Ontario universities," he says.

BY DARLENE FRAMPTON

PEOPLE

TREVORS JOINS WHO'S WHO

Prof. Jack Trevors, Environmental Biology, has earned inclusion in *Who's Who in the World 1998* for his national and international contributions to science. Published by Marquis Who's Who, the guide lists more than 40,000 of today's most influential people worldwide. To be chosen for inclusion, candidates must have held a position of responsibility or have attained a significant achievement in their field.

LONG SERVICE HONORED

Employees marking their 25th year of service at U of G in 1997 were honored at a reception Nov. 24 in the Whippletree. They are: College of Arts: Susan Morrison, dean's office; Hendrik Horn, Fine Art and Music; Irene Pages, Languages and Literatures.

CBS: David Noakes, Zoology.

CPES: Saul Goldman and Albert Woon-Fat, Chemistry and Biochemistry; Thomas Wilson, Computing and Information Science; John Holbrook and Gary Spoor, Mathematics and Statistics; George Renninger, Physics.

College of Social Science: Carmelina Riddi, dean's office; Louis Christofides and Robert Swidinsky, Economics; Rod Barron and Ernest Dalrymple-Alford, Psychology; Neil MacKinnon, Ken Menzies and Victor Ujimoto, Sociology and Anthropology.

OAC: Larry Martin, Agricultural Economics and Business; Gilian MacPherson, dean's office; Mark Evans, Land Resource Science.

OVC: Wendy Parker, Clinical Studies; Judith Flanigan and Jim Rahn, Nursing Care.

Facilities and Hospitality Services: Wayne Britenden, Hospitality Services.

Registrarial Services: Sharon Anthony, Academic Programs.

Library: Tim Sauer, Collections; Ralph Daehn, Systems Services.

Physical Resources: Martin Hodgson, Engineering; Edwin Martin, Pauline McIsaac, Daniel Mollison, Albert Montgomery and Rosemary Thomson, Housekeeping.

Student Affairs: Susan Nuttley, Counselling and Student Resource Centre.

THE CLASS SIZE CONUNDRUM

Contrary to popular belief, research indicates that small classes are not necessarily better. Why not?

BY SID GILBERT

WHEN I WAS FIRST APPROACHED by the Association of Universities and Colleges of Canada to review the postsecondary research on class size, I expected to find that small classes produced better thinking and reasoning outcomes.

I was somewhat surprised to find that although early research did identify statistically significant small-class benefits for motivating students, changing attitudes and enhancing higher-order thinking and reasoning, it showed little impact on knowledge acquisition or general academic skills. In addition, although the differences between small and large classes were statistically significant, they were very small, that is, they were not substantively important.

Later research produced some interesting findings. In the first place, students and faculty members tend to prefer small classes. And although we may like small classes, that does not necessarily make them better. Second, in one study of 4,000 courses at 16 campuses in the United States, teaching evaluations became less favorable as class sizes approached 250, then became more favorable for even larger classes. Third, the preference for small classes referred to above varies by some interesting background characteristics. First-year college students, for example, prefer small classes, but upper-division students prefer large ones.

These and other similar findings have led researchers to reformulate the question from "Does class size matter?" to "What are the dimensions of effective teaching and how do these vary by class size?" The results indicate that it is not so much the size of the class that matters, but what goes on in the class.

Studies of teaching effectiveness have found that course organization and instructor practices and characteristics are important in producing positive student outcomes. Instructor characteristics that make for effective teaching are:

- competency, experience, knowledge;
- concern for students;



- enthusiasm/energy level; and
- speaking ability — organization and clarity.

Course organization aspects that produce positive outcomes are:

- focus on thinking and reasoning rather than rote memorization;
- personal faculty-student and student-student contact;
- active learning;
- meaningful participation and involvement in the class;
- explicit course goals and student outcome targets; and
- planned course content and procedures.

What is most interesting is that although there are some constraints, these characteristics do not depend on class size. Instructors in large classes are often extremely energetic, organized, caring and knowledgeable. Large classes often have explicit goals with planned content and procedures, including active learning and an emphasis on higher-order cognitive skills. Personal contact is likely the most difficult aspect to incorporate into large classes, but there are ways to maximize both peer and faculty contact.

Not all large classes need to be large, dull, boring lectures. On the other hand, not all small classes involve intense contact with enthusiastic, knowledgeable, organized and effective instructors.

When I give talks on class size, I ask members of the audi-

ence to raise their right hand if they have been in a small class that was not effective, then to raise their left hand if they have experienced an effective large class. Between two-thirds and three-quarters of the audience will have at least one hand in the air, and quite a few have both.

We know, based on our own experience, that small classes are neither necessary nor sufficient for learning. Similarly, we know that large classes do not automatically condemn the learner to dull, passive listening.

Sometimes I get attacked for these findings. Colleagues say that surely I could do a better job teaching 20 students than 200. My response, based on the research, is no. I am

lethargic, ignorant, disorganized and ineffective no matter how many are out there. This underscores the point that it's not what can be done but what is done that's at issue. It also provides an opportunity to address the collective aspect of teaching. Some instructors perform well in smaller settings; others perform well in larger settings. Why not vary class size and try to ensure that some matching occurs with experience, competencies and talents?

Colleagues also say the workloads differ for 20 students versus 200, a point I am willing to concede. But this is another issue. What is a fair and equitable distribution of work is a different question than what features produce positive student outcomes.

Finally, the idea by itself that class size is not as important as usually thought has led some people to conclude: "Fine, let's just pack students and instructors into the largest rooms possible and save some money."

As the research findings indicate, this misses the essential point that what goes on in the class — the course organization, management, instructor characteristics and practices — is fundamentally important for student learning, and as a result, we should pay great attention to these aspects.

Prof. Sid Gilbert is a faculty member in the Department of Sociology and Anthropology.

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A CONSUMING INTEREST

Studies in nutrition and aging bring FACS grad back to Guelph roots

BY ALEXANDER WOOLEY

AN ELDERLY WOMAN living alone decides to skip lunch. A pension cheque not due till the following Tuesday, she neglects to eat a proper dinner that night, too. She may not know it, but this woman could be approaching a line that places her life in danger.

When and why she crosses that line is what Prof. Heather Keller, Family Studies, an expert on nutrition and aging, wants to discover.

"What I'm hoping to find is what causes seniors already at risk to be put over the top, requiring long-term care or hospitalization or resulting in mortality," says Keller. "We want to locate and identify the risk factors, the predictors."

Her curiosity is a shared one, judging from a significant grant she received in October from Hamilton Health Sciences Corporation to fund a four-year study into the problem. She hopes her research will eventually lead to a standardized screening assessment system that will measure critical factors and that could be used across the country to provide warning signs of when a senior is at high risk.

Keller's combined training as a dietitian, epidemiologist and clinical researcher with a wealth of hands-on experience gives her several leads on what the key factors could be.

"Is it people with good family networks who don't require that long-term care or hospitalization? How much does nutrition play a role? Does in-home help lessen the risk? Social support, income and functional abilities — being able to go out and shop for groceries — are all potential contributing factors."

The demand for Keller's expertise is apparent in the numbers. In 1990, 270,000 seniors in Canada required substantial community support, and 230,000 were institutionalized. It's estimated that by 2031, 1.5 million seniors will require substantial support.

A greying baby-boomer generation and longer life spans contribute to making aging a growth discipline. In 1991, the 65-and-over age group represented 11.6 per cent of Canada's total population; by 2021, it will represent 18.6 per cent and by 2031, 22.7 per cent.



Keller notes that eating right is something that should be practised at all ages, preferably among convivial company.

"A large part of good nutrition is social," she says. "People across all age groups don't eat as well or as healthily when they're on their own. The difference is that younger people just recover quicker than the elderly do."

Another factor that cuts across age groups is income. "Seniors especially can fall into a trap of regarding food as an 'adjustable' expense. They might prioritize items that must be paid and are of a fixed amount — rent, heat — over eating a healthy meal."

Keller cites another revealing statistic — a man or woman 85 or older with no spouse is 12 times as likely to be institutionalized as a senior of the same age group who lives with a spouse.

Appointed to the Department of Family Studies in 1996, Keller is one of the newest faculty members in FACS, but she's not a newcomer to U of G. In fact, her interest in aging issues has taken her full circle back to Guelph, where she received her undergraduate degree in applied human nutrition in 1989. After earning a master's degree in clinical nutrition at McGill University, she worked as a registered hospital dietitian in London and obtained a PhD in epidemiology and biostatistics from the University of Western Ontario in 1996.

"When I started at Guelph, I took gerontology courses and became fascinated with the subject matter," says Keller. Later, she served as a Natural Sciences and Engineering Research Council (NSERC) research assistant to family studies professors Donna Woolcott and Anne Martin Matthews, whom she credits as early mentors.

"They saw my abilities in terms of research and let me develop my skills and a sense of independence. The NSERC experience was valuable; it provided me with the tools to go out and work on anything."

Woolcott, now chair of the Department of Family Studies, says she's delighted to have Keller back at Guelph.

"She's a wonderful addition to our faculty. She brings lots of energy, ideas and a unique expertise that combines nutritional epidemiology, clinical nutrition and a very specialized knowledge in the area of nutrition and the elderly. These are all very hot topics in the field of human nutrition today. She is also a very talented teacher. We've had great feedback from her students, and she is revamping some of our curriculum in the field of nutritional assessment."

Keller's teaching duties at Guelph include courses on nutritional assessment and nutritional management of disease states. She also has two other research proposals in the works. One focuses on nutrition and feeding behavior of Alzheimer's patients; the other would involve setting up a first-of-its-kind nutritional risk-screening program in long-term care institutions.

Canadian Literature Comes of Age

Internationalism emerges as dominant influence on Canadian writing in second edition of Oxford Companion

THE SECOND EDITION of *The Oxford Companion to Canadian Literature* is a celebration of the coming of age of Canadian literature, says retired U of G English professor Eugene Benson, co-editor of the publication.

Weighing in at 1,199 pages and containing 1,100 entries written by 325 contributors, the new edition covers fiction, poetry, drama and criticism and explores such current genres as science fiction, multicultural literature, and gay and lesbian literatures in a Canadian context.

The book was launched this fall at the 18th International Festival of Authors in Toronto, where it was named outstanding book.

It contains numerous author entries, bibliographies, a thorough examination of language issues and a complete overview of Canadian literature from the 17th century to the present. Intended to be of interest to average readers as well as scholars, the *Companion* was edited by Benson and

William Toye, former editorial director of Oxford University Press Canada and general editor of the first edition of *The Oxford Companion to Canadian Literature*, published in 1983.

The overriding theme of the new *Companion* is the emergence of internationalism as a dominant influence in Canadian writing. Whereas the first edition of the *Companion* was primarily concerned with nationalism, the second edition is preoccupied with literature that is global in outlook, says Benson.

"The *Companion* suggests that the whole question of national identity is less important than it was 14 years ago, Canadian writers are more concerned about definition of self and place in an international context."

The remarkable transformation of Canadian literature began in 1967 with the publishing of an original *Companion* under the joint title of *Oxford Companion to Canadian History and Literature*, followed in 1983

by the first edition of a *Companion* devoted solely to Canadian literature.

"The first editor was almost apologetic because it was felt there wasn't enough Canadian literature for a *Companion*," says Benson. "Now, there is no doubt there is enough."

The new edition reflects the development of notable Canadian writers as well as literary themes. At the time of the 1983 edition, many writers such as Margaret Atwood, Timothy Findley and Alice Munro were in mid-career. Now they have reached full career, and many promising new writers, including writers from Southeast Asia and the Caribbean, have appeared, adding much richness and depth to the definition of Canadian literature.

"I believe this is a period of consolidation in Canadian literature," says Benson. "As soon as you free yourself from the bonds of colonization, there is a freeing of the imagination."

The content of the *Companion*

was overseen by an editorial board of scholars from across Canada, who advised the editors on new entries and suggested contributors. Benson and Toye spent 2 1/2 years assigning and organizing the entries with the assistance of 325 contributors, including 132 new ones.

Eight U of G faculty members contributed entries to the *companion*: Profs. Diana Brydon, Ajay Heble, Donna Pennee Palmateer, Mary Rubio, Tim Struthers, Marianne Micros and Gillian Siddall of the School of Literature and Performance Studies in English and Prof. Terry Crowley, History.

Guelph earned a mention in several entries related to Canadian writers. Jane Urquhart, winner of the 1997 Governor General's Award for fiction for her novel *The Underpainter*, is a 1971 graduate of U of G. John Steffler, whose novel *The Afterlife of George Cartwright* was nominated for a Governor General's Award in 1992, completed a master's degree

in English at Guelph in 1974 under Benson's supervision. U of G drama professor Judith Thompson has won two Governor General's Awards — in 1984 and 1989 — for her playwrighting.

Benson recognizes that the book may meet with criticism because of perceived omissions or oversights, but he hopes readers will embrace its overall goal.

"A *Companion* is intended to entertain, to enlighten and to help," he says. "I hope that readers of *The Oxford Companion to Canadian Literature* will regard it as a friend as well as a resource."

Author of a number of novels, plays and librettos, Benson is also co-editor of *The Oxford Companion to Canadian Theatre* (1989) and *The Encyclopedia of Post-Colonial Literatures in English* (1994) with Leonard Conolly, a former associate vice-president (academic) at U of G.

BY MARGARET BOYD

Being Nice to Millions of Mice

U of G researchers win award for easing stress on laboratory animals

MILLIONS OF LABORATORY animals will experience less distress from blood sampling thanks to a new procedure developed at Guelph.

Prof. Bill Woodward and M.Sc. student Kimberley Shipp, Human Biology and Nutritional Sciences, have found a quick, simple and inexpensive way to improve blood withdrawal from research animals. Their discovery, based on research with mice, captured top honors in a competition held by the U.S.-based Working for Animals in Research, Drugs and Surgery.

Woodward says the success of this work speaks volumes for U of G research in animal welfare.

"It's no accident that this kind of significant refinement in research animal care occurred at Guelph. There is a mind set and attitude here in the research community that is promoted by the University. U of G is a leader in animal welfare."

The researchers made their discovery while studying how stress from severe malnutrition affects the immune system of mice, research designed to ultimately gain a better understanding of the relationship between malnutrition and human immunity.

"A low-stress blood-withdrawal procedure was necessary to the immunity project," says Woodward. "We didn't expect the technique to win international recognition."

Here's what led to their discovery. When mice — or humans — are under stress, a steroid hormone called a glucocorticoid (corticosterone in the mouse) is released into the blood. It is well documented that glucocorticoids are powerful immune regulators. By measuring

the level of this hormone in the blood, the amount of stress that malnutrition imposes on an animal can be assessed.

But before Shipp and Woodward could investigate this, they had to determine the normal level of corticosterone in mice.

"The existing literature suggests a very broad normal range, from 10ng to 400ng/mL blood, depending on which study you look at," says Woodward. "We needed to find a clear value or range for the unstressed mouse that we could base our research on."

To do this, blood should be taken from the mouse before the animal can react to the stress imposed by the sampling process. Published research suggests there's a two- to four-minute delay before a mouse releases corticosterone in response to stress. But Woodward and Shipp weren't convinced this was accurate because the existing studies showed such variation in measured corticosterone levels. They had a hunch that mice react to stress much more quickly. Because several minutes are involved in most anesthesia procedures, this could confound blood test results. So they aimed to decrease the exposure time of the mice to all possible sources of stress prior to sampling.

They chose carbon dioxide as an anesthetic because it's known to cause less irritation than the more popular inhalant anesthetics, and it causes rapid loss of consciousness.

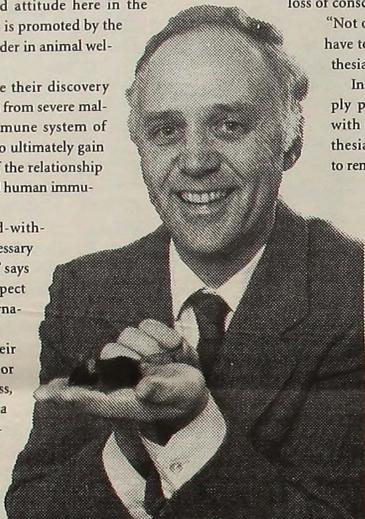
"Not only that, the animals never have to be handled prior to anesthesia," says Woodward.

Instead, the mouse cage is simply placed in a chamber filled with carbon dioxide. The anesthesia takes a scant five seconds to render the mouse unconscious.

Subsequent studies by Woodward and Shipp show increases in blood corticosterone if the procedure takes longer than 30 seconds from the moment the cage is first disturbed, proving that response time estimates in earlier studies were inaccurate.

This research is sponsored by the Natural Sciences and Engineering Research Council and McKellar Structured Settlements Inc.

BY TAMMY GRIME
OFFICE OF RESEARCH



Prof. Bill Woodward

PHOTO BY MARTIN SCHWALBE

Right Choice of Dietary Fats Could Enhance Immunity

Some plant oils may be particularly potent stimulators of immune development in the young

CHOOSING VEGETABLE OILS with the right kind of fats could be both heart-smart and good for your immune system, say Guelph researchers. Prof. Bill Woodward and research assistant Lyn Hillyer, Human Biology and Nutritional Sciences, believe that some plant oils — like soybean oil — may be particularly potent stimulators of immune development in the young.

Along with collaborative partner Tammy Bray, a former Guelph faculty member who is now at Ohio State University, they're studying how plant oils with different fat compositions promote healthy immune responses in young mice.

"We have some encouraging indications that enhanced immune development can be achieved by manipulating dietary fats," says Woodward. "Now we are trying to confirm these results. If we can do that, we can then determine what components of plant oils are important in promoting immune development."

Many consumers know that plant oils low in saturated fats and high in specific kinds of unsaturated fats are important for heart health. But Woodward and Bray's research goes one step further — they think oils with certain key characteristics may promote immune development. They're looking at two categories of unsaturated fats called "n-3" and "n-6" fatty acids.

Woodward believes it may be the amount of n-3 fatty acids in plant oils — and the ratio of n-3 to n-6 — that determines an oil's ability to promote

immune development.

"Animals fed diets containing high levels of oils rich in n-6 fatty acids often show depressed immunity," says Woodward. "In contrast, plant oils containing n-3 fatty acids seem to be associated with enhanced immune function, although some of these oils are also rich in n-6 fatty acids."

In their preliminary work, the researchers found that young mice fed a diet supplemented with soybean oil (which has an above-average n-3:n-6 ratio) showed a significant improvement in immune development.

Now they're scaling up the research. They're comparing six different plant oils, each with unique concentrations and proportions of n-3 and n-6 unsaturated fatty acids. Woodward hopes to be able to correlate the fatty acid contents of the plant oils with their ability to promote immune development.

"If we can identify what components of the oils — or combinations of components — are responsible for the ability of certain plant oils to promote immune development, then we can begin to have some predictive ability. This may eventually allow us to extend our results to make recommendations for human dietary consumption."

This research is sponsored by the Ontario Ministry of Agriculture, Food and Rural Affairs and the Ontario Soybean Growers' Marketing Board.

BY JEFF STUART
OFFICE OF RESEARCH

A Time of the Signs

U OF G RECENTLY EARNED KUDOS from the Ontario Association of Chiefs of Police (OACP) for signing on with the provincial Highway Help Program.

The association presented a ceremonial 200,000th Highway Help sign to U of G representatives Keith McIntyre, director of Security Services, and Lucie Turner, manager of Parking

Administration, at a gathering at Guelph Police Service Headquarters. The University also received a certificate of appreciation for embracing and promoting the program.

"We are always trying to enhance personal safety both on and off campus," says Turner. "As a result, we didn't hesitate to get involved with this program. The comments we received were very

positive, and we encouraged other institutions to become involved."

The program, launched by the association in April 1996 and recognized by police services province wide, establishes a simple and uniform method for providing road assistance. A stranded motorist hooks the highly visible "Call Police" sign from the car window, and a passing motorist uses a cellular phone

or CB radio to call *OPP or 911 to summon police to the scene.

The success of universities like Guelph in promoting the program jointly with local police services has led the OACP to solicit partnerships with General Motors, 3M Canada and other businesses. Guelph Police Chief Lenna Bradburn calls Highway Help a "tremendous assistance to policing."

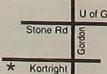


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CLASSIFIEDS

FOR SALE

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Two pairs of women's skates, size 8, one pair in new condition, 824-7969 after 5:30 p.m.

Custom dog sketches by well-known artist specializing in lifelike animal sketches, 824-1397.

Computers: 486/25 with Packard Bell monitors (three), 386 with VGA monitors (two) and a 386 with Packard Bell monitor, Michelle, Ext. 8513.

1983 Volvo DL standard four-door sedan, well maintained, 200,000 miles, excellent condition, Ext. 3638 or 837-1732.

Crystal five-light chandelier with embossed scrollwork; four-light touch-control lamp, glass with gold; nine-drawer dresser with mirror and four-drawer dresser, solid dark wood; night tables, dark

green; shopping cart; baby stroller; portable camping toilet; balloon valances, beige with small flowers, 11 1/2" wide, Ext. 3044 or 821-1879.

FOR RENT

Furnished one-bedroom basement apartment, private entrance, bright and warm, quiet neighborhood, includes washer/dryer, parking, non-smoker, no pets, \$450 a month including utilities, references required, 763-2632.

Two-bedroom furnished house available for two months from Feb. 1 to March 31, 10-minute walk to University, mature persons only, no pets, no smoking, \$875 a month including utilities, 822-6193.

Three-bedroom newer detached home in south end, five minutes to campus, available now for short-term lease, 836-5907.

Three-bedroom bungalow, excluding basement apartment, close to river, trails and bus, non-smokers, no pets, \$825 a month plus utilities, 824-0246.

Rooms for students in shared township, walking distance to campus, on bus line, available now, \$375 a month inclusive, leave message at 767-6072.

Furnished two-bedroom condo in historical building in centre of Guelph, everything supplied, rent by day, week or month, reasonable rates, available April 1, Carol, 823-1857 or 837-7537.

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Piano lessons from caring, patient and experienced teacher, advance at your own speed, popular music lessons for all ages, 824-1397.

Typing and dictaphoning, essays, papers, etc., 837-9438 after 5 p.m.

Classifieds is a free service available to staff, faculty, students, alumni and retirees of the University. Submit items by Wednesday at noon to Linda Graham on Level 4 of the University Centre, fax to 824-7962 or send e-mail to lgraham@exec.admin.uoguelph.ca. For more information, call Ext. 6581.

GRAD NEWS

The final examination of **Anne Malleau**, an M.Sc. candidate in the Department of Animal and Poultry Science, is Jan. 16 at 9:30 a.m. in Animal Science and Nutrition 306. The thesis is "Effects of a Simulated Brooding Cycle on the Behavior and Growth of Broiler and Layer Chicks." The adviser is Prof. Ian Duncan.

The final examination of PhD candidate **Benjamin Amoh**, Economics, is Jan. 16 at 10 a.m. in MacKinnon 132. The thesis is "An Empirical Analysis of the Impacts of Taxes and Royalties on Petroleum Supply in Alberta." The adviser is Prof. John Livernois.

The final examination of **Jane Ellenton**, an M.Sc. candidate in the Department of Food Science, is Jan. 16 at 12:30 p.m. in the Murray Room of Graham Hall. The thesis is "Cellular Morphology of Bifidobacteria and Their Survival Encapsulated in Calcium Alginate Beads." The adviser is adjunct professor Linda Harris.

The final examination of M.Sc. candidate **Angela Ewtushik**, Animal and Poultry Science, is Jan. 16 at 2:30 p.m. in Animal Science and Nutrition 306. The thesis is "Performance and Intestinal Development of Early Weaned Piglets Receiving Diets Supplemented with Selected Amino Acids or Polyamines." The adviser is Prof. Ron Ball.

The final examination of PhD candidate **Jeffrey Stuart**, Zoology, is Jan. 20 at 8:30 a.m. in Axelrod 265A. The thesis is "Evolutionary and Adaptive Aspects of Lipid and Ketone Body Metabolism in Gastropod Molluscs." The adviser is Prof. Jim Balandyne.

The final examination of **Milena Corredig**, a PhD candidate in the Department of Food Science, is Jan. 20 at 9 a.m. in Graham Hall 3301. The thesis is "Properties of Milk-Fat Globule Membrane Derived from Buttermilks from Different Sources." The adviser is Prof. Douglas Dalgleish.

The final examination of M.Sc. candidate **Jacqueline Brun**, Food Science, is Jan. 22 at 9 a.m. in the Guelph Food Technology Centre. The thesis is "The Competitive Adsorption of Milk Proteins in Heated Oil-in-Water Emulsions." The adviser is Prof. Douglas Dalgleish.

Interested members of the University community are invited to attend.

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ARBORETUM

Naturalist Chris Earley will lead night stalker's owl prowls Jan. 23 and 24 at 7 p.m. from the nature centre. Cost of each session is \$9 for adults, \$4.50 for children or \$25 for a family of four. Registration and payment are required by Jan. 16. To register, call Ext. 4110.

On Jan. 25, the Arboretum hosts an afternoon of winter fun from 1 to 4 p.m. Several winter activities will be available to try, including tracking and animal signs, winter insect wonders and snowshoeing. Admission is free. For more information, call Ext. 2113.

A tap-dancing quartet from William Orlovski & Co. presents the children's show *Oliver Button Is a Sissy* Feb. 4 at 6:30 p.m. at the Arboretum Centre. Tickets are \$5. For information, call Ext. 2113.

ART CENTRE

Two new exhibitions open in the Macdonald Stewart Art Centre in January. "David Rokeby: Giver of Names" features works by David Rokeby, a leader in artistic technological innovation. The show, which includes the world premiere of a new work, runs Jan. 22 to March 22, with an opening reception slated for Jan. 22 at 7:30 p.m. On Jan. 29 at 4 p.m., Rokeby will discuss his work. Also opening Jan. 22 is "A Sense of Time and Place," featuring historical and contemporary works from U of G's permanent collection. Exhibition curator Gregory Klages will give a gallery talk Feb. 26 at 4 p.m. The show runs until July 26.

CONCERTS

The School of Fine Art and Music kicks off its winter Thursdays at Noon concert series Jan. 15 with Guelph graduate Oscar Cano. The pianist will perform works by Berg, Moncayo, Márquez and Piazzola. On Jan. 22, soprano Mary Enid Haines and Watson Buchanan of McMaster University present "The Life of Robbie Burns" in poetry, prose, music and song. The Jan. 29 concert features Paula Elliott on flute and Sylvia Hunter on piano.

Children's storyteller Robert Munsch will perform at three benefit concerts Jan. 18 for the U of G Child-Care and Learning Centre. Performances run at noon, 2 and 4 p.m. in War Memorial Hall. Tickets are \$9 and are available at the Child-Care Centre, the Bookshelf, The Corner at Stone Road Mall and Looney Tunes

downtown and through the River Run Centre box office at 763-3000.

The University Centre presents Holly Cole Feb. 4 at 9 p.m. at War Memorial Hall. Tickets are \$29 in advance, \$30 at the door, and are available at the UC box office.

Susan Aglukark performs Feb. 14 at 8 p.m. at the River Run Centre. Tickets are \$25 and \$27. For ticket information, call 763-3000.

CONFERENCES

The School of Landscape Architecture hosts the conference "Women in the Profession: A 10-Year Retrospective on the Profession of Landscape Architecture and Its Practitioners" Jan. 16 from 1 to 5 p.m. in the Landscape Architecture Building. The afternoon will feature presentations, informal focus groups and a plenary session.

The 17th annual Organic Agriculture Conference runs Jan. 30 and 31 on campus. Cost is \$45 general, \$10 for students. A public forum and panel discussion on "The Agribusiness Challenge to Organic Agriculture" is slated for Jan. 30 at 7 p.m. in UC 103. Admission to the forum is a cash or food donation to the Guelph Food Bank. For more information, call Tomás Nimmo at 705-444-0380 or send e-mail to organix@georgian.net.

LECTURES

The School of Fine Art and Music presents Toronto artist Brian Boigon, head of the Art Gallery of Ontario's new media centre, Jan. 21 at 12:30 p.m. in Zavitz 320. His topic is "Down the Hole: A Look at New Entertainment Models."

Third Age Learning — Guelph's winter lecture series for retired people continues Jan. 28 with a discussion of Shakespeare by Prof. Fred Vaughan, Political Science, at 10 a.m. and a look at "High Renaissance of Music" with Gordon Greene at 1:30 p.m. Lectures are at the Arboretum Centre.

NOTICES

An information meeting for U of G's 1999 Latin America semester will be held Jan. 15 at 5 p.m. in OVC 1713. Deadline for applications is Feb. 9. For more information, call Prof. David Waltner-Toews, Population Medicine, at Ext. 4745 or send e-mail to dwaltner-to@ovcnet.uoguelph.ca.

The Association of Universities and Colleges of Canada will again hold regional workshops on enhancing

Canadian university international development efforts. The Ontario workshop is Jan. 29 to 31 at Ryerson Polytechnic University. For more information, visit the InfoCentre at the Centre for International Programs in Day Hall.

The School of Languages and Literatures will host an evening for the Nice program Jan. 21 at 7 p.m. at La Maison française in Lennox-Addington. The evening will be hosted in French. For more details, call Ext. 3884.

The Stress Management and High Performance Clinic is offering instruction in a variety of techniques for muscular relaxation, anxiety reduction and worry control this semester. Classes run at noon, 5:30 or 8 p.m. The 12-session programs run Tuesdays and Thursdays, beginning Jan. 27. Cost is \$120 general, \$40 for U of G students and \$60 for members of the U of G Staff Association. Registration forms are available at the Connection Desk on UC Level 3. For more information, leave a message at Ext. 2662 or visit the Web site www.uoguelph/~ksomers.

The International Consortium for Educational Development in Higher Education will hold its second international conference April 19 to 22 in Austin, Texas. Hosted by the Centre for Teaching Effectiveness at the University of Texas at Austin, the conference will focus on "Supporting Educational, Faculty and TA Development Within Departments and Disciplines." For more information, check out the Web site <http://iced.cte.utexas.edu:8001> or contact Karron Lewis at 512-232-1776 or kglewis@mail.utexas.edu.

The Guelph University Polythemic Society for people interested in reading, writing, photography and exploration meets every other Tuesday at 5:30 p.m. in MacKinnon 314. The next meeting is Jan. 27. For more information, send e-mail to ncorbett@uoguelph.ca, nicola@snowhitte.cis.uoguelph.ca or gordonj@uoguelph.ca.

SEMINARS

Computing and Communications Services is offering seminars for all members of the University community in January and February. The topics are "Effective Web Pages with Netscape Composer," "Effective Web Pages: Intermediate Page Creation and Site Management" and "SAS Statistical Program." For more information on time, location and registration, see the CCS Web pages at <http://www.uoguelph.ca/CCS/>.

The Department of Economics presents John Rowse of the University of Calgary discussing "Technological Advances in Recovery Methods and Efficient Allocation of a Non-Renewable Resource" Jan. 16 at 3:30 p.m. in MacKinnon 235.

The Department of Physics presents McGill University physiologist Leon Glass Jan. 20 at 4 p.m. in MacNaughton 113. His topic is "Universality, Cardiac Arrhythmia and Sudden Death." On Jan. 27, Wolfgang Ketterle of MIT looks at "Matter Made of Matter Waves: Bose-Einstein Condensation and the Atom Laser."

The Plant Biology Council winter seminar series runs Wednesdays at 3:15 p.m. On Jan. 21, Andy Reynolds of Brock University discusses "Flavor Development in the Vineyard: Impact of Viticultural Practices on Grape and Wine Monoterpene Aroma Compounds Erodicidin" in Axelrod 259. On Jan. 30, Charles Benbrook of Benbrook Consultant Services Inc. asks "Is Agricultural Biotechnology Ready for Prime Time?" in Crop Science 117.

WORKSHOPS

The School of Fine Art and Music will offer a vocal master class with mezzo-soprano Catherine Robbin and accompanist Mary Louise Vosburgh Jan. 24 from 10 a.m. to 12:30 p.m. and 1:30 to 4:30 p.m. in MacKinnon 107. Cost is \$15 for performers and \$3 for auditors. Students wishing to perform should call Theresa Thibodeau at 822-1732. The school is also staging a demonstration and workshop on band instruments called "Knowing What's Available to the Serious Music Student and Professional" Jan. 20 at 12:30 p.m. in MacKinnon 103. This session is open to the public.

COMMUNITY EVENTS

Mark Kingwell, a Toronto-based political and cultural theorist, author and critic, will speak Jan. 15 at 7:30 p.m. at Chalmers United Church. His topic is "(Stop) Making Sense of the Millennium: Politics and Culture at the End." Tickets are \$5.

The Trillium Children's School presents "Children Are Not Tiny Adults" with Connie White Jan. 28 at 7:30 p.m. at the school in Westwood United Church.

The Canadian Federation of University Women (CFUW) will meet Jan. 27 at 7:30 p.m. at the Guelph Steelworkers Centre, 89 Dawson Rd. Guest speaker Alex Mustakas, artis-

tic and managing director of the Drayton Festival Theatre, will discuss "The Drayton Festival Theatre Experience." This meeting is open to the public. For CFUW membership information, call Joyce George at 865-9094.

The Multiple Sclerosis Society support group will meet Jan. 20 at 7:30 p.m. at 238 Willow Rd. For more information, call Jolynne Neil at 821-6309. The MS Society also runs a swim group Wednesdays at 10 a.m. at the Holiday Inn Pool.

The Central Orchid Society meets Jan. 26 at 7 p.m. in Waterloo at the Rink in the Park on Seagram Drive. The evening will feature a slide show on "Super Spider Orchids: Breeding with Brassias." For more information, call Richard Côté at Ext. 4375.

The Canadian Mental Health Association presents Michelle Wright in concert Feb. 5 at 8 p.m. at Guelph Memorial Gardens. Tickets are \$40 and \$29 and are available at the U of G box office or by calling 824-5970, Ext. 307.

The Guelph Arts Council will hold its annual Fête Romantique draw Jan. 26 at 4:30 p.m. at the council's office at 147 Wyndham St. N. Grand prize is a gourmet dinner for six. Tickets are available at the GAC office, Guelph Artisans Store and the Framing and Art Centre.

The Rotary Club of Guelph's 1997/98 travel program continues Jan. 14 with a presentation on Alaska by Fran Reidelberger and Feb. 4 with "Singapore to Bali" by Pat McCarrier. The talks begin at 8 p.m. at E.L. Fox Auditorium. Tickets are \$5 at the door.

The YMCA-YWCA of Guelph presents an eight-week series on "Anger Management for Women" Thursdays at 7 p.m. and a three-part series for separating couples on "Children in the Middle" Thursdays at 7:30 p.m. Both sessions begin Jan. 29 at the Kensington "Y" Centre. Cost of each series is \$65. For more information or to register, call 836-2091.

The Arkell Schoolhouse Gallery presents a strings concert Jan. 16 at 8 p.m. The program will include works by Mozart and Tchaikovsky. Tickets are \$20. For reservations, call 763-7528.

The Canadian Wildflower Society meets Jan. 21 at 7:30 p.m. in Axelrod 117. Ecologist Dan Kraus of Limestone Creek Nurseries discusses "Naturalizing with Native Plants in Your Own Backyard." Everyone is welcome.

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