

Medal for President

UBC President David Strangway has been awarded the 1987 J. Tuzo Wilson Medal for his outstanding contribution to Canadian geophysics.

Strangway is best known for his studies in rock magnetism and for his work at NASA, where he was responsible for the geophysical aspects of the Apollo missions. For his scientific accomplishments, he has been awarded the NASA Medal for Exceptional Scientific Achievement, the Virgil Kauffman Gold Medal of the Society for Exploration Geophysicists and the Senior Izaak Walton Killam Memorial Scholarship, Canada's most prestigious award in the sciences.

The Canadian Geophysical Union named the Wilson Medal after the country's most renowned geophysicist -- a pioneer in the research of plate tectonics. Tuzo Wilson, who was first to win the award in his name in 1978, was also Strangway's professor and mentor.

Strangway will receive the Wilson Medal at the International Union of Geodesy and Geophysics assembly on Aug. 18 at UBC.

Merger possible

Boards of Trustees for UBC Health Sciences Centre Hospital and Shaughnessy Hospital are discussing the possible merger of the two facilities.

Alan Pierce, outgoing chairman of the Health Sciences Hospital, said the merger would save money and would "allow us to improve our services in the future, with particular focus on leading edge developments in wellness and health promotion."

The combined complement of the two hospitals is approximately 1,650 beds, of which 950 are located at Shaughnessy.

Both Pierce and Dr. Daniel Birch, UBC's vice-president academic and chairman of Shaughnessy Hospital, said the merger would not result in significant cuts in nursing and medical staff. As well, each hospital has vacancies for senior administrators, so there are no predicted management cuts.

In spite of those assurances, the president of medical staff at the campus hospital said he can't see any argument in favour of amalgamation. Dr. Kenneth Leighton said the UBC Health Sciences facility has strong funding and successful teaching and patient treatment programs. "Why try to fix something that's not broken?" he asked.

Dr. Birch said the principles Dr. Leighton stands for will be considered when the Boards of Trustees meet to discuss the feasibility of a merger.

UBC honors Hansen

Man-in-Motion Rick Hansen and outgoing chancellor Robert Wyman will receive honorary degrees at a Sept. 9 ceremony in the War Memorial Gymnasium.

The degrees will be conferred at a ceremony marking the installation of UBC's new chancellor Leslie Peterson.

Peterson, a Vancouver lawyer and former cabinet minister and attorney-general, was elected chancellor by UBC alumni in March. He will be installed for a three-year term by Lieutenant-Governor Robert Rogers.

Peterson will then confer honorary Doctor of Laws (LL.D) degrees on Vancouver businessman Robert Wyman, UBC's chancellor since 1984, and wheelchair athlete Rick Hansen.

The final part of the ceremony will introduce a new UBC tradition -- an official welcoming of new and returning students by President David Strangway. Director of Ceremonies John Stager said all students, staff and faculty are encouraged to attend the ceremony, which is tentatively scheduled for 2:30 p.m.

Stager said the university intends to make the welcome to students an annual event.

Ocean study

UBC oceanographers are now able to study the circulation of ocean currents during the past two million years as if they were leafing through the pages of history books, with the department's new \$300,000 mass spectrometer.

Dr. Tom Pedersen said information gathered by the machine is being used to aid companies involved in oil exploration.

The mass spectrometer measures the amount of stable isotopes in sediment samples taken from the ocean floor. By combining that information with the climatic history of the earth, researchers hope to discover the effect of both on the accumulation of organic matter.

Plant scientists at UBC will also use the machine to study the effect of ozone on plants. And Simon Fraser University's archeology department is using the mass spectrometer to study the nutritional habits of the native aboriginals of B.C.

Admin/professional staff get improved salary scale

by Debora Sweeney

As part of a commitment to ensure UBC salaries remain competitive with the market, the Board of Governors has approved a new salary scale for administrative and professional staff.

Bruce Gellatly, vice-president of administration and finance, said the new scale attempts to correct inconsistencies between pay grades 1-12 and the minimum to maximum ranges within those grades. He said there have been situations where a supervisor's salary is less than the salary of the person supervised.

In an attempt to remedy those kinds of situations, the Board has approved a five per cent salary increase allowance fund (subject to approval under the Compensation Stabilization Program), which includes a three per cent merit pool and a two per cent pool for anomalies.

In the first year, the two per cent pool will be used to adjust positions which are more than 20 per cent behind the market and for individuals whose salaries are below the new pay grade minimums. In the second year, a pool will be established to take care of staff groups 10-20 per cent behind the market, and in the third year, a similar pool will be set for groups which are 5-10 per cent behind.

The differential between those supervised and their

supervisors will be adjusted to three per cent with a target of five per cent within three years.

Eileen Stewart, director of Personnel Services, said the Board's decision came after the university experienced recruiting problems attributable to salary ranges not keeping pace with the market.

"We want to attract and retain quality staff, thinking people, progressive people," said Stewart. "Dr. Strangway would like us to be seen as an outstanding employer."

The university is basing the salary range modifications on pay research data provided by public and private sector organizations and other western Canadian universities. The analysis shows that in most cases, administrative and professional staff at UBC make less, some considerably less than their counterparts. The gap between the market and UBC is largest at the lower pay grades with a narrowing of the gap towards the higher pay grades. At pay grade 10, UBC ranges are higher.

"We want our salaries to be competitive at the average of the market," said Stewart.

The revised salary scale does not include general pay increases to all staff. Individual salary adjustments will be made on a merit basis. Gellatly said the pay adjustments will be made annually.

DNA test marks disease gene

by David Morton

"We're here to eliminate the hell of uncertainty," says UBC medical geneticist, Dr. Michael Hayden.

He is referring to a new test that can predict the presence of Huntington's Disease before its symptoms appear. For people with a family history of the genetically transmitted disease, that can cut out years of painful anticipation.

A child has a 50-50 chance of inheriting the gene from a parent with Huntington's. And since the disease often appears at age 30 to 40, potential victims must live in uncertainty for most of their lives.

When it appears, the victim suffers uncontrollable body movements, such as flinging of the arms or legs, clenching and unclenching of the fists and slurred speech. Ultimately, the sufferer loses the ability to talk, swallow or remember recent events. After 15 to 20 years of gradual deterioration, the victim dies.

"It's a fairly rare disease -- it affects only about one in 10,000," says Hayden, a recent Killam award winner. "But approximately one in 1,500 are at risk of inheriting the disease."

"It has also been described as the worst disease known to man. Not only is it extremely slow and debilitating, it strikes in

the most productive years of many people's lives.

"For people at risk, finding out whether or not they have the disease, however painful, can be a tremendous relief. Either way, they can make some decisions and plan their lives with more certainty."

The Huntington's Disease test being used at UBC involves the study of DNA taken from blood samples of potential victim and family members. Radioactive DNA probes are added to the sample and attach themselves to the chromosome carrying the Huntington's gene. Pictures of the radioactive DNA are taken, which show up as small black bands, called markers.

By checking the markers against a family history of the disease, Hayden and his team can identify the DNA marker inherited with the Huntington's gene in the family. If it shows up in the "at risk" family member, there is up to a 96 percent chance he or she will develop the disease.

Eight patients have completed the tests since the UBC program started two years ago. Hayden won't say how many have tested positive for the gene. Forty-five are currently enrolled in the program.

See DNA Page Two



Huntington's disease research staff inspects a petri dish with cultured DNA clones. Left to right are director, Dr. Michael Hayden, Chantel Hilbert, Dr. Jeff Hewitt and Dr. Denis Allard.

New Physics Dept. head encouraged by activity

by Jo Moss

Since stepping into his new position as head of the physics department July 1, Brian Turrell has been hard-pressed to keep up with the changes in the department. Barely two weeks after his appointment, the provincial government announced funding for a new chemistry-physics building on campus—a boon for those physics researchers who will be able to expand into properly designed laboratory space.

"It's very encouraging. For years we've been trying to do research in a building that was designed for teaching," Turrell says.

One rapidly changing area of research that has received considerable media attention recently is superconductors—materials that conduct electricity with no power loss. About a dozen UBC physicists are collaborating to compete in the world-wide race to develop the new "high temperature materials".

"There are some problems to be solved," Turrell says. "One is that the properties of superconductors are such that they may not necessarily be useful for power generation and



Dr. Brian Turrell

transmission. The superconducting material is not metallic, but basically ceramic and difficult to fashion into wires and cables.

"However, the commercial potential is very great. Other areas of application include large magnets, magnetically levitated trains and high-speed computers."

In his own area of research, Turrell has turned his attention recently from studies of magnetic materials to developing superheated superconducting colloidal detectors—devices that detect sub-atomic particles and radiation (X-rays and gamma rays). They may also be able to detect neutrinos (particles that have no charge and a very small or zero mass at rest).

"Normally the detectors that track neutrinos are very large and expensive devices," Turrell says. "There are many problems to overcome, but if they are, these new detectors would be much cheaper and could be made relatively easily. As X-ray detectors they may also have important applications in medicine and industry."

The department has many experimental research strengths such as spin-polarized atomic hydrogen studies, which are known world-wide, and have led to the creation of one of the most accurate clocks in the world. There are also strong theoretical efforts in cosmology and particle physics. In addition, the department has an enviable record of spin-off technology including the MOLI battery, the VORTEK lamp and the TIR light pipe system.

Two recent arrivals who have enhanced the department are: Ian Affleck, under the auspices of the Canadian Institute of Advanced Research, who adds to the expertise of the theoretical side of the department. And Tom Tiedge, a renowned experimental physicist, who is interested in surface science and thin-film technology, such as solar cells.

Turrell is hoping his new administrative duties won't keep him too far from his research, or his noon-hour run. An avid runner with half-a-dozen marathons to his credit, he trains daily with a group of faculty colleagues.

Although the post of department head means a reduced teaching load, Turrell will continue to instruct one course this fall. "I think it's important to keep in touch with the undergraduate students," he says.

New phones by year end

A state-of-the-art touch-tone telephone system will be in place on campus by the end of the year.

Communications supervisor Olga Duncan said the new Northern Telecom SLI system will help UBC reduce its annual \$4.4 million telephone bill because it's more efficient and flexible than the old Centrex system.

"Several areas on campus, such as the Health Sciences Centre Hospital, Personnel Services, the Development Office, Commerce, the Pulp and Paper Research Centre and others, are already using the new system, which has been in place since April, 1980," said Duncan. "We're upgrading the hardware and software and increasing the memory so that the system can be used by the whole campus."

Duncan said the \$5 million borrowed by the university to install the system will be repaid during the next 15 years from reduced annual telephone equipment costs.

When the switch-over is carried out in December, campus users will be able to reach any university office by dialing only the last four digits, including the areas which currently have to be dialed with six or eight digits.

All campus telephone numbers will remain the same.

Duncan outlines some of the features of the new system:

"If a person is dialing long distance, he or she will just have to dial 9 and then the number. The system will automatically place the call through the least expensive route—first through foreign exchange, then the WATS line, and finally through direct distance dialing (DDD). If the first two routes are unavailable, the caller has the option of using DDD, or waiting until a less expensive route is available. The system can automatically ring the caller back when a foreign exchange or WATS line is free."

Duncan said that this feature alone should save the university a significant amount of time and money.

Other highlights of the new system include message waiting and call forwarding features.

Another change for campus telephone users will be a new bill-back procedure that will be introduced in the spring of 1988.

"We will operate like a telephone company, allocating a telephone equipment budget to each department supported by the university's general purposes operating funds," said Duncan.

Duncan said that the budget for each department will be assessed very carefully to ensure that the rates are fair and equitable.

DNA Continued from Page One

According to Hayden, telling patients they have the gene is never easy.

"It's a highly emotional session. There are lots of tears. We try to prepare patients for the worst by rehearsing the outcome. We get them anticipating what will happen in both cases. It softens the blow a little."

Hayden is director of the National DNA Bank for Huntington's Disease based at the Health Sciences Centre. The bank stores DNA samples of at-risk patients and their family members so that in the future, a person may undergo tests despite a crucial relative's DNA being unavailable at the time.

Currently, the bank holds 1,250 samples from around the world. The UBC Health Sciences Centre program is one of only four centres in the world where these tests are carried out.

The DNA Bank also serves as a research centre. Even though scientists have found the marker for Huntington's, they still haven't found the gene that is responsible.

People

Award-winning journalist heads UBC news bureau



Don Whiteley

Well-known journalist Don Whiteley has left the Vancouver Sun to head the UBC News Bureau in the Community Relations Office.

Business reporter for the Sun, Whiteley recently won first prize in the news category of the 1987 MacMillan Bloedel journalism awards for a series of articles on the countervailing duty issue in the lumber war between Canada and the United States.

Competition judge and industry consultant Ron Longstaffe praised Whiteley's quality of writing and initiative. "He was dogged in tracking down the issues and contributed much to the public's understanding of the news."

A two-time winner of the Canadian Petroleum Association national journalism award, Whiteley worked in radio and television, and at the Boston Globe and Calgary Herald, prior to joining the Sun in 1979. In his 20 year career, he has reported on a variety of issues and areas from sports to politics and more recently energy and forestry.

As manager of the Community Relations News Bureau, Whiteley will be acting in a capacity similar to that of city editor at a large newspaper, developing media strategies to raise the profile of the university at the national and international level, as well as within B.C., and directing an extensive public information program.

He also takes on the editor's position for UBC Reports.

The Royal Society of Canada has awarded chemistry professor Grenfell Patey the Rutherford Medal in Chemistry for outstanding research. Patey studies water and aqueous electrolytes, and in the process of this work has discovered new and powerful theoretical techniques which can be applied to other liquids and solutions. Described by the society as "a brilliant theoretical physical chemist of his generation", Patey's work has gained him an international reputation.

Vice-President Research The University of British Columbia

The University of British Columbia is seeking outstanding candidates for the position of Vice-President, Research.

The chosen candidate will have major responsibility for the development and administration of research policy including oversight of more than \$70 million in annual research grants and contracts.

The Vice-President, Research, has direct responsibility for the Office of Research Services, the Office of Industrial Liaison, Animal Care Services, and works with the president and other vice-presidents in identifying strategies for achieving university goals and priorities.

The incumbent chairs the President's Executive Committee on Research, is responsible for committees which advise on internal research grants and prizes, serves as a

Four UBC librarians have been recognized for outstanding achievements.

Anne Piternick, a professor in the School of Library, Archival and Information Sciences, received the Special Librarianship Award from the Canadian Association of Special Libraries and Information Services.

The Canadian Association of College and University Libraries' Blackwell Award went to the school's director, Basil Stuart-Stubbs.

The B.C. Library Association recently presented Honorary Membership Awards to Margaret Friesen, head of the UBC's Interlibrary Loan Division, for achievements in leadership and fundraising, and to Joan Sandilands, head of Sedgewick Library, for public relations development and implementation.

The Society of Multivariate Experimental Psychology recently awarded psychology professor James H. Steiger the Raymond B. Cattell award for distinguished contributions to the field.

Psychologists use various methods to gather and analyze data from their experimental work. Multivariate experimental psychology is an area of study in which a number of different measures, or variables, are examined at the same time to see if certain patterns, or relationships between the variables can be determined.

Steiger has developed several unique statistical tests which allow psychologists to evaluate data in a simpler, more efficient way. He is currently involved in developing a new computer language and associated software which will analyze and test experimental data under this simplified system.

Mathematics professor Shirley Wong received the Sheila Cameron Award at the 1987 Business Educator's Conference for outstanding contributions in the field of business education. The annual award recognizes excellence as a classroom teacher, outstanding accomplishments, sharing ideas through seminars, workshops and publications, and professional involvement in the B.C. Business Educator's Association and the Canadian Association of Business Education Teachers.

One of Canada's leading curators in ethnology is joining the staff of UBC's Museum of Anthropology. Carol Mayer was formerly senior curator at the Vancouver Museum where she developed the Department of Decorative and Applied Arts and worked with exhibits such as "The Look of Music" and "Cabinets of Curiosity". Mayer, who has mounted more than 30 exhibits in her career, will be involved with collection management, research and public education at the MOA.

Rehabilitation professor Lyn Jongbloed has received the 1987 Achievement of the Year Award from the B.C. Society of Occupational Therapists. Jongbloed collaborates with clinicians in facilities such as G.F. Strong Rehabilitation Centre for her research which includes the effectiveness of occupational therapy treatment programs involving stroke patients.

university nominee on several boards and councils, and represents the university in its relations with various industrial, provincial and national agencies and associations.

Please reply in confidence to:

Dr. D.W. Strangway, President
The University of British Columbia
6328 Memorial Road
Vancouver, B.C. V6T 2B3

with a curriculum vitae and the names of three references. Applications or nominations should be received by Oct. 31. The successful candidate is expected to take office in early 1988.

In accordance with Canadian immigration requirements, this advertisement is directed to Canadian citizens and permanent residents.

Acid rain—just a question of time for West Coast

by Jo Moss

"The first question people usually ask me is 'why are you studying acid rain in southern Ontario out here in British Columbia?'" says medicine professor David Bates.

Few people think of acid rain as a West Coast phenomena. But according to Bates, it is just a question of time before B.C. will face the same destructive effects of acid rain.

"We now have the same high levels of ozone pollutants as do parts of Ontario. Air pollution in Port Moody gets up to 120 parts per billion in the summer and that's about what southern Ontario gets. But pollution from sulphates in the West is still far below eastern levels."

Ozone results from automobile emissions and industrial processes; sulphates originate as sulphur dioxide expelled from industries such as pulp and paper mills. Given time and the right meteorological conditions, sulphur dioxide turns into sulphates. One reason the sulphate level in Vancouver is low is because there is no long-range transmission of sulphates as there is from industry in Illinois and Indiana to areas of Ontario and Quebec.

The difference in levels of ozone and sulphate pollutants between Vancouver and Ontario is the reason Bates has turned his attention to the effects of air pollution in the Lower Mainland. As a respiratory physician, he hopes to find out how each of the two chief components of acid rain affect the health of the population.

Working in collaboration with geography professor Timothy Oke, Bates has begun to duplicate in B.C. his ground-breaking Ontario study of acid rain.

This research, begun in 1977 and still underway, has been to study the correlation between air pollution readings, weather, and hospital visits in southern Ontario.

Using data obtained from the Ontario Health Insurance Plan, Bates looks at the number of daily admissions to hospital for respiratory ailments along a 500 kilometre stretch between Windsor and Peterborough.

He has found that on summer days when pollution levels are high, there is a small but definite increase in the number of people admitted.

"We're talking about an increase of only 25 people, or so, in a population of five million on a given day, but it's repetitive," Bates says. "The importance of the study is that it is the first time anyone has dared to suggest that the present levels of pollution in Ontario might be affecting people. This is not exactly popular with some politicians."

Previous studies on the effects of acid rain have focused on crop damage or deterioration of the environment. Bates was the first to establish a link between precursors of acid rain and an increase of respiratory ailments in people. He says concrete evidence of health problems are what it will take to pressure the U.S. to legislate a limit on acid rain emissions.

Bates says there is some controversy as to whether fresh water lakes in the West are already affected by acid rain. Some scientists speculate they are. In the long term, Bates points to what has happened in eastern Canada and the eastern United States as a future scenario for B.C.

"In Pennsylvania, experts estimate that 5,000 miles of trout streams have already been destroyed. In Vermont and Quebec, people are concerned about the maple sugar industry and I think acid rain levels there are going to destroy a lot of the maple sugar trees. In addition to polluting lakes and streams, I think it's probable that acid rain is reducing the productivity of forest growth by at least 20 per cent. And that's why the West has to watch its sulphur dioxide emissions. If we allow tree growth to decline we're cutting right into the basic resources of the province."

Bates has acted as a consultant for numerous organizations, both public and private on the hazards of air pollution. Formerly consultant to the U.S. Surgeon General on air pollution in Los Angeles, he testified before a U.S. Senate Committee in 1968 on the effects of ozone. Recently returned from a second trip to Washington at



Dr. David Bates

the invitation of the U.S. Committee on the Public Works and the Environment, he is cautiously optimistic about future restrictive legislation.

Bates speculates that "something effective will be done" in the next 10 years. "It's a slow process. You just have to keep the pressure on. All our efforts are educational, we go through the research data with the Senate committee members and answer questions about it."

But those efforts, he says, are more than matched by a powerful lobby sponsored by U.S. utilities which spent \$3 million in Washington last year lobbying against action against acid rain. "There's a big organization pounding the Senators trying to persuade them that the studies are not true. We don't have that kind of financial support on our side."

Bates predicts acid rain will be a key issue in the next American election. "I think Canada will keep up its pressure and so it should. Legislative changes in the States will depend on who is elected. If there is another right wing government, it may be a long time coming."

Part of the problem is that acid rain is not strictly an environmental issue, all kinds of other social factors come into play. To control sulphur dioxide emission, for example, the government can redesign utilities that are out of date, or perhaps use a coal with a lower sulphur content. But what happens to the economic welfare of people who live in an area producing the high-sulphur coal?

"That's where the politicians take over," Bates says. "My job is to point out the extent of the problem—they can take the issue and run with it."

Bates volunteers hundreds of hours of service. For example, he and geography professor Timothy Oke appeared before a municipal committee in Port Moody last year to argue that a licence application from B.C. Hydro to run its thermal generator during the summer, would raise the ozone levels in the air. "In the end, we got the license profoundly qualified, which was some sort of success."

"The realization is slowly coming, both here and in the States, that you can't make ad hoc development decisions continuously without having progressive degradation of the atmosphere," Bates says. "Original pollution legislation in B.C. was written in such a way that applications to the Greater Vancouver Regional District, who issue licenses for industrial expansion, were considered in isolation. Anyone opposing it was required to prove that the individual application would have direct adverse effects—a very difficult thing."

"People are beginning to realize that if they take single steps like that, they end up with severe air pollution. Each step of the process has perhaps been defensible, but piled one on top of the other it becomes too much. We have to take a global look at the issue."

Med students get a taste of rural doctor's life

In spite of today's increasingly specialized and high tech health care educational system, UBC medical students are getting a unique opportunity to experience the life of a traditional country doctor.

Through the Medical Student Rural Practice Program, run by UBC's Faculty of Medicine, participating students benefit not only in their overall medical education, they also get a taste of rural life, says the program's co-ordinator Dr. William Buchan, who also heads UBC's campus Family Practice Unit. Under the auspices of this program, second-year medical students are sent to rural areas of the province to work with experienced physicians for periods of four to eight weeks.

A major benefit of this program, explains Buchan, is that the students see a wide range of medical practices. Rural family doctors routinely handle problems that are usually given to specialists in urban centres.

The highly successful program, which began in 1974 with 28 students participating, has grown steadily in popularity over the years. This summer 90 students out of a class of 120 are involved. They will head to such far-flung places as Bella Bella and Yellowknife, NWT. Each student is paired with a family doctor who volunteers his or her services as an instructor. The students are paid a minimum wage provided by monies from a government-sponsored Challenge '87 project and the Faculty of Medicine.

The program was created initially as a "make-work" project, with the long-run intent to promote recruitment to isolated areas of the province, says Buchan. In several cases former students have gone back to the communities where they trained. Some have even gone into practice with their instructors.

According to Buchan, the vast majority of participants have enjoyed their rural practice experience. "Not only did I learn a lot about medicine but I got a chance to learn about Indian culture, which was an invaluable experience," wrote one student in a typical response to the program.

"I've been looking forward to it," says medical student Derek Hitchman, who has been on the program since May 25. "It's probably the best part of our schooling."

Hitchman, who gets paid about \$700 a month, is assigned for eight weeks to a family doctor in Langley where he gets to do a lot of hands-on work. "It's a great way to get some general experience," says the 27-year-old student who is thinking of going into family practice.

It probably won't be in Vancouver or Victoria. According to recent figures from UBC's Health Manpower Research Unit, there are 40 per cent more family doctors per capita in B.C.'s two major metropolitan areas than in the rest of the province. The rural practice program will continue to play an important role in encouraging medical graduates to establish in rural areas.

Physics Olympiad

Two B.C. high school students claimed top honors at the International Physics Olympiad in East Germany, July 5 - 12. The students were competing against 121 young physics whizzes from 25 countries.

Karl Berggren of Coquitlam won a bronze medal and Greg Wellman of Richmond won an honorable mention. Berggren attended St. Georges School, Wellman attended Sir Winston Churchill in Vancouver.

The competition is the science world's answer to the Olympics and involves each student responding to complex questions, problems and practical situations. Dr. Brian Turrell, the head of physics at UBC, said the students' accomplishments are extraordinary because Canada is a newcomer to the Olympiad.

Three of the five students chosen to represent Canada in the competition were from B.C. Dr. Michael Crooks of the UBC physics department coached the team.

Greg Wellman, who will attend UBC in the fall, has won one of the university's top entrance scholarships, the Mt. Pleasant Scholarship worth \$5,000. Karl Berggren has enrolled at Harvard University.

Food safety is complex

North Americans are becoming more and more selective about the foods they eat. But ironically, they may be doing themselves—and their families—more harm than good.

UBC food scientist Brent Skura says when it comes to food safety, what you don't know can hurt you.

"There are a lot of misconceptions about items such as food additives and preservatives," he says. "Without the proper information, people can end up eating food that's worse for them than the foods they're avoiding."

People mistakenly believe, for example, that organically grown fruits and vegetables are always healthier and safer than commercially grown foods treated with pesticides or herbicides.

"When plants are invaded by various fungi, viruses or insects, they protect themselves by producing toxic chemicals," explains Skura. "If the chemicals occur in high enough concentrations they can represent a real health hazard to humans eating the produce."

Skura says the summer season, with its abundance of fruits and vegetables, also presents food safety hazards.

"Many people like to freeze and can their own produce," he says, "but if it isn't done properly, the results can be very dangerous. There's a very hardy and toxic organism called Clostridium botulinum that can survive the home canning process if it isn't followed to the

letter.

"If the organism isn't killed in the heating process in canning, it can lead to botulism, a serious form of food poisoning that causes gastrointestinal and respiratory problems, and in some cases, even death."

Skura says Agriculture Canada has published a free booklet (Publication #1560) that outlines safe techniques for canning fruits and vegetables. For a good overview of food safety he recommends Health and Welfare Canada's "Food Safety -- It's in Your Hands", which is also available free of charge.

New parkade for SUB lot

The Board of Governors has approved the development of working drawings for a new 1,250-vehicle parkade on campus.

Subject to Board approval of the final designs and adequate financing arrangements, the parkade could be completed by the fall of 1988.

It will be located on the site of the present Student Union Building parking lot, which accommodates 492 vehicles. A covered walkway will join the parkade and the adjacent Gage Residences.

Bruce Gellatly, UBC's vice-president for finance, said the multi-storey parkade will meet the growing demand for parking by users of the Student Union Building, Gage Residences, General Services Administration Building, Brock Hall, Main Library and buildings housing the Faculties of Arts and Law.

"It's estimated that between 85 and 100 vehicles are turned away from the SUB parking lot every day during the academic year," said Gellatly. He added that parking is needed in the summer months for visitors to UBC's Conference Centre, which is located in the Gage Residences.

Total cost for the parkade is estimated at \$6.3 million, including construction, road works, fees and interim financing. Gellatly said construction of the parkade would require modest increases in parking rates in 1988/89.

Construction is expected to begin in March, 1988.

Sino-Tibetan language conference

Experts from around the world will be on campus Aug. 21-23 for the 20th International Conference on Sino-Tibetan Languages and Linguistics.

Dr. Edwin Pulleyblank, a professor of Asian Studies at UBC, said experts from China, Taiwan, Hong Kong, Japan, Australia, the United States, Canada and Europe will be at UBC to present papers on topics ranging from the history of Chinese and Tibetan languages to the relationship between language and society in modern China.

Funding for the conference is being provided by the Asia Pacific Foundation.

UBC Calendar

SUNDAY, AUGUST 9

Sun Dance

Evelyn Roth's Festival Arts, with Sun Ray sculpture and dance choreographed by Ann Harvey. Weather permitting, otherwise will transform into a Rain Dance celebration. Free. Behind Museum of Anthropology, near Haida Houses. 2:30 p.m.

MONDAY, AUGUST 10

Pharmacology & Therapeutics Seminar

Ca²⁺ Dependent Relaxation in Oesophageal Smooth Muscle. Dr. C.R. Triggler. Room 317, Basic Medical Sciences Building, Block C. 4 p.m.

WEDNESDAY, AUGUST 12

Pharmacology & Therapeutics Seminar

The Venous System in Cardiovascular Homeostasis. Dr. C.V. Greenway, Chairman, Department of Pharmacology & Therapeutics, University of Manitoba. Room 317, Basic Medical Sciences Building, Block C. 4 p.m.

THURSDAY, AUGUST 13

Medical Grand Rounds

Antiplatelet Agents - When and Why. Dr. Cedric Carter, Department of Hematopathology, HSCH. Room G-279, Lecture Theatre, Acute Care Unit, Health Sciences Centre Hospital. 12 noon.

WEDNESDAY, AUGUST 26

Office for Women Students Lecture

Women Coping With Campus. A one-session program for women planning to enter UBC this fall after a break of five or more years in their education. Free, but pre-registration is required. Register at Brock 203. Enquiries: 228-2415. Room 223, Brock Hall. 9 a.m. - 3 p.m.

NOTICES

Volunteers Needed Urgently

Crane Library is looking for a team of volunteer readers with mathematics (calculus) knowledge. Readers should have relatively accent-free English, good knowledge of first year calculus and able to spend two consecutive hours per week or more during business hours in the Crane Recording Centre. Some training materials available. This project is urgent. Contact: Paule Thiele 228-8111.

Safety Program Seminar

The Occupational Health and Safety Department is holding a 2-day seminar on occupational health and safety programs. Topics include Safety Responsibilities, Effective Safety Committees, Safety Inspection Techniques, Accident Investigations and Safety Training and Instruction. Free admission. Will be of interest to managers, supervisors and safety committee members. For information and registration call 228-2643. Wed. and Thurs., August 19 and 20.

Bursaries to Study French at UBC

Bursaries may be available to Canadian citizens or landed immigrants who have been full-time students during the 1986-87 academic year. Now - August 21. The bursary covers tuition, room and board on campus, and cultural and social activities scheduled by the Program. For information, call 222-5224.

First Student Nations' Cup of Canada

University students from thirteen nations will compete in the Olympic disciplines of dressage and show jumping on horses provided by the host organization (SRUBC). 10 a.m. - 3 p.m. daily, August 21-23. Southlands Riding Club, 7025 Macdonald Street, Vancouver (below S.W. Marine at Macdonald).

Native Youth Programs

Native Youth Workers present the following illustrated talks and tours: Traditional Uses of the Cedar Tree (1:15 p.m.); Northwest Coast Ceremonies and Feasts (2 p.m.); Fishing Technology on the Northwest Coast (2:30 p.m.); Totem Pole Tour (3:30 p.m.). Tuesday through Friday now through August 28. For more information, call 228-5087, Museum of Anthropology.

Economic Seminar

Doing Economics Economically. Terence Gorman, Oxford University. Every Tuesday and Thursday throughout August. Economics Conference Room, Buto Room 997D. 3:30 - 5:30 p.m.

Laboratory Chemical Safety Course

The UBC Occupational Health and Safety Office is offering a course covering chemical storage, handling and disposal, laboratory inspections, emergency response and spill clean up. The two morning lecture sessions (August 24 and 25) and one morning practical session (September 2, 9, 10 or 25) are intended for people who handle chemicals in a laboratory, especially lab technicians, stores keepers and safety committee representatives. Information and course registration is available from the Occupational Health and Safety Office, 228-2029.

Research Forest Tours

The UBC Research Forest, Silver Valley Road, Maple Ridge offers guided tours until Sept. 7. Sundays and holiday Mondays a professional forester will guide visitors on a free two-hour tour of the gentle trail system leaving the main gate at 2 p.m. rain or shine. Group and individual tours run Wednesday to Friday and can be arranged by calling 463-8148.

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Dr. David Sanderson, Physical Education, in the cycling research lab with Shad Valley student Leonard Firkus of Chilliwack on the bike.

Science views the cyclist

The single most common affliction for cyclists, whether they are recreational riders or professional racers, is knee injuries. Yet little is known about how and why they occur.

That will soon change once David Sanderson's research gets under way. An avid cyclist and Physical Education professor with a background in biomechanics--the study of human motion using the principles of mechanics--he is investigating the relationship between the joints and muscles used in pedalling. "It's cycling from a scientist's viewpoint," he says.

"The issue is how the motion of cycling causes an injury," he explains. "We study the up-and-down path of a cyclist's knees to determine deviation from the ideal movement which is in a straight vertical line. Deviation from this line may cause joint inflammation and other problems."

With a better understanding of the mechanical movements of the body, the

solution to some knee injuries may be as simple as adjusting the orientation of the foot on the pedal of the bike, he says.

"For most cyclists, the question of how high they should put the seat, whether it should be tilted forward or back, and how fast to ride for maximum efficiency is a matter of personal preference and what feels right for them. What we will eventually be able to tell people is how to cycle for maximum effectiveness and minimal risk of injury."

A recent arrival to UBC from Pennsylvania State University, Sanderson has already done preliminary testing with the Canadian bicycling team. He is currently working in conjunction with the Sports Medicine Clinic in the area of elite performance.

The future results of Sanderson's research will have implications for other areas of medicine, including patients in rehabilitation who have been advised to substitute cycling for other physically taxing exercise.

Tour Time at the Library

Tours of Main and Sedgewick Libraries will be given weekdays, September 8-18 at 10:30 a.m. and 12:30 p.m. Meet in the Main Library entrance. Tours last about 45 minutes. All welcome.

Heritage Quilts

A selection of antique and modern quilts from the collection of the Agnes Etherington Art Centre of Queen's University, Ontario. Monday - Friday, 10 a.m. - 4 p.m. Basement, Main Library Building.

Free Guided Campus Tours

Bring your friends, visitors, community, school or civic group to UBC for a walking tour of the campus. Every Monday through Friday at 10 a.m., 1 p.m. and 3 p.m., groups will have the opportunity to see and learn about everything from the unique Sedgewick underground library to the Rose Garden and more. Tours last approximately 2 hours in the morning and 1 1/2 hours in the afternoon. To book, call the Community Relations Office at 228-3131.

Botanical & Nitobe Memorial Gardens

The Botanical Garden and Nitobe Memorial Garden will be open daily 10 a.m. - 8 p.m. Free admission Wednesdays. For information, call 228-4208.

Calendar Deadlines

For events in the period September 13 to September 26, notices must be submitted on proper Calendar forms no later than 4 p.m. on Thursday, September 3 to the Community Relations Office, 6328 Memorial Road, Room 207, Old Administration Building. For more information, call 228-3131.

English Conversation Class

English Conversation Class, with a variety of music, stories and films - all free! International House, Upper Lounge. For more information, call 228-5021. Monday evenings, 7:30 p.m.

GRANT DEADLINES

SEPTEMBER 1987

- * Alberta Oil Sands Tech. and Research Authority -Research Contract [1]
- * Alcoholic Beverage Medical Research Fdn. -Research [15]
- * American Council of Learned Societies -Fellowships [30]
- * Birla Academy of Art & Culture -Award for Humanism [30]
- * B.C. Health Care Research Foundation -Development and Training Fellowship [1] -Research [1] -Research Scholar Award [1]
- * B.C. Medical Services Foundation (BCMSF) -Research [21]
- * Canada Council: Aid to Artists -Aid To Artists [15]
- * Canada Council: Explorations Prog. -Explorations Grant [15]
- * Canadian Heart Foundation -Cardiovascular Travelling Lectureships [15] -Grants in Aid of Research or Development [15] -Research in Professional Education [15] -Research Scholarship [15] -Stroke Research Fellowship [15] -Teaching Fellowship [15] -Visiting Scientist Programme [15]
- * Canola Council of Canada -Canola Utilization Assistance Program [11]
- * Committee to Combat Huntington's Disease (US) -Research [30] -Research Fellowship [30]
- * CSP Foods Ltd. -CSP Canola Research Award [30]
- * Cystic Fibrosis Foundation (US) -Clinical Fellowships, 3rd yr. [1] -Research [1] -Research Fellowships [1] -Research Scholar Awards [1]
- * Francis, Parker B., Foundation -Parker B. Francis Fellowship in Pulmonary Research [15]
- * Hamber Foundation -Foundation Grant [5]
- * Health and Welfare Canada: Welfare -National Welfare: Research Group Development [1] -National Welfare: Senior Research Fellowship [1] -Welfare Research Project Contribution [1]
- * Health Effects Institute (US) -Research (Letter of Intent) [22]
- * King Baudouin Foundation -International Development Prize [30]
- * Koerner, Leon and Thea, Foundation -Foundation Grants [15]
- * Leukemia Society of America -Scholar, Fellow, Special Fellow [1]
- * March of Dimes Birth Defects Fdn. (US) -Research [1] -Social & Behavioral Sciences Research Program [1]
- * Matsumae International Fdn. -Matsumae Fellowship [30]
- * MRC: Awards Program -MRC Scholarship [15]
- * MRC: Grants Program -Maintenance Grants [15] -Major Equipment [15] -Operating Grants - NEW [15] -Program Grants (Letter of Intent) [1]
- * North Atlantic Treaty Organization -Advanced Research Workshops Programme [15] -Advanced Study Institutes (ASI) [15]
- * Rockefeller Foundation -Research: Women's Status and Fertility [1]
- * Royal College of Physicians and Surgeons of Canada -Continuing Medical Education Fellowship [30] -H.K. Detweiler Travel Fellowships [30] -MacKenzie-Ethicon Travelling Fellowship [30] -Royal Cdn. Legion Fellowships in Geriatric Medicine [30] -Travel Fellowship for Non-Resident Fellows [30]
- * Shastri Indo-Canadian Institute -Research, study & language training in India [10]
- * Sloan, Alfred P. Foundation (US) -Sloan Research Fellowships [15]
- * Squibb Cardiovascular Fellowship Program -Squibb Cardiovascular Fellowship Award [30]
- * SSHRC: Fellowships Division -Canada Research Fellowships (due ORSL) [17]
- * Technion Israel Inst. of Technology -The Harvey Prize [30]
- * Third World Foundation for Social and Economic Studies -Third World Prize [30]
- * University of British Columbia -UBC-SPCA Animal Alternatives Committee [19] -UBC-SSHRC Grants to New Faculty (HSS) [28]
- * World Society for the Protection of Animals -WSPA Marchig Animal Welfare Award [30]
- * World University Services -Awards to Foreign Nationals: Fellowships [30]