

Tuition fee guidelines approved by UBC's Board

UBC reports

Volume 25, Number 22, Dec. 5, 1979. Published by Information Services, University of B.C., 2075 Wesbrook Mall, Vancouver, B.C. V6T 1W5, 228-5151. Jim Banham and Judith Walker, editors. ISSN 0497-2929.

Board gets erosion proposals

A low-cost plan for erosion control of the Point Grey cliffs, calling for public co-operation and wide use of faculty and student expertise from the University of B.C., was presented today (Tuesday, Dec. 4) to the Board of Governors of the University.

The plan, drawn up by soils expert Stanley Weston at the request of the Board, recommends four immediate steps to be taken to prevent further erosion.

1. The removal of all root-damaged trees from the edge of the cliff, leaving only three-foot stumps. "This would help prevent falling trees from stripping the protective soil mantle from the cliffs and also by leaving the roots, help stabilize them."

2. The erection of fences, barriers and signs to prevent destructive access to the cliff slopes, along with improvements to access trails to Wreck Beach and Tower Beach.

3. A five-year program of revegetation on eroded areas of the cliffs, with heavy use of fertilizer to promote growth. The report says people should be kept off the cliff slopes to give the planting program a chance.

4. The storm drain outlet from the University should be rebuilt. The report identifies the outlet as a cause of erosion below the Museum of Anthropology.

Weston estimates cost of this "Priority No. 1" program at \$352,000 over a five-year period, with a first-year outlay of \$133,000.

Weston, a UBC governor himself, was appointed by the Board on Oct. 2 (without honorarium) as a task force of one to look into the erosion problem and prepare a written plan of operation, timetable and budget. He was asked to carry out a critique of an earlier "master plan" prepared by Swan Wooster Engineering of Vancouver, and to consult with groups concerned about the cliffs and the beaches below.

The Weston report also includes a number of "second priority" proposals, the cost of which is estimated at \$230,000. His report lists the total costs for all of his recommendations at \$800,000. The Swan Wooster "master plan" carried a price tag of \$12 million.

The original plan, however, called for expenditure of close to \$8 million for construction of a 1.2-mile berm against the base of the cliff, using rocks with a diameter of up to two feet, to protect the cliff against wave action. Weston recommends only an experimental beach berm, as one of his "second priority" proposals, and sets the cost at \$230,000. He says the effectiveness of the experimental berm should be assessed before any further work might be considered.

"It became increasingly apparent as our investigations progressed through the submissions and public hearings that the development of beach defenses was considered an extremely sensitive matter to everyone concerned

Please turn to page 2
See EROSION PLAN



Jim Banham photo

UBC's popular and youthful-looking registrar, Jack Parnall, retires at the end of December after a 30-year teaching and administrative career. For a profile, turn to page 3.

Co-operation urged to convince government

UBC's president has called on the academic community to co-operate in an effort to convince government that shoring up the financial system of B.C. universities will benefit the province and the nation.

President Douglas Kenny said there is a real lesson to be learned from the way in which the Canadian university community has co-operated to convince the federal government to increase substantially the funds available for research.

He made the latter comment during a question period which followed his release last week of a statement entitled "The Mission of the University of British Columbia," prepared at the request of the Universities Council of B.C.

The president, who was addressing a meeting of the Joint Faculties of the University, said the research-funding picture "has started to turn around because the academic community got together with common goals. I would hope," he continued, "that the faculty, the students, the support staff, not only at this University but at our two

Please turn to page 2
See UBC MISSION

Tuition fees for UBC students will be subject in future to a set of guidelines approved yesterday (Tuesday, Dec. 4) by the University's Board of Governors.

The guidelines provide a timetable for consideration and implementation of changes in tuition-fee structure, and principles to guide the Board in determining the level of fees and fee differentials.

ANNUAL REVIEW

The timetable guidelines provide for:

- An annual review of tuition fees by the Board at its October meeting, and

- A decision by the Board not later than its November meeting on fee levels to be implemented at the next spring session, which commences on April 30 in the following calendar year.

Guidelines on fee levels provide that:

- Tuition fees be "not less than 10 per cent of the net budgetted general purpose operating costs for the current year (i.e., the fiscal year in which the review is made)"; and

- The gap between the existing level of fees and the 10 per cent yardstick be closed "at the discretion of the Board," which will take into account "the general level of fees in other provinces, particularly western Canada."

STUDENT AID

Another guideline approved by the Board calls for an annual review of "the adequacy of student aid opportunities" at the same time as the tuition-fee review.

Tuition-fee differentials for various UBC degree programs will continue, with a number of factors, including programs costs and the earning potential of participants, being taken into account in setting fee differentials.

Another guideline calls for tuition fees for new programs to be set at levels that are not a burden on existing programs.

The adoption of the guidelines is the result of a study by the finance committee of the Board.

The effect of the guidelines will be that the Board will next consider fee levels at its meeting in October, 1980. A decision on fee levels to be implemented in the spring of 1981 will be made not later than the Board meeting in November, 1980.

INCREASE APPROVED

Last June, the Board approved a tuition-fee increase averaging 10 per cent to take effect on April 30, 1980, with the start of the next spring session.

The chairman of UBC's Board of Governors, Dr. Leslie Peterson, in announcing adoption of the new guidelines, said there is "no generally accepted yardstick anywhere in the world for determining the proportion of university revenue that should be derived from student fees."

In the U.S., he said, the proportion varies from 15 per cent in public institutions to 37 per cent in private universities. In the United Kingdom, university heads have proposed that fee income should not exceed 10 per cent of university income, but this view has not prevailed in the face of a government directive to increase fee income to 20 per cent.

STEADY DECLINE

Mr. Peterson said that at UBC student fees as a percentage of the total operating grant had declined steadily over the last nine years from 15.56 per cent in 1970-71 to 8.47 per cent in 1978-79.

He said basic tuition fees at UBC are as low or lower than those at any western Canadian university and substantially below the average basic fees for arts, science and professional programs at other Canadian universities.

UBC MISSION
Continued from page 1

had to work as a team in pressing for additional operating funds. "There are certain areas where this province is starting to cut off its options because it is not paying competitive salaries," he said.

(For more on the recent announcement by the federal government that it will increase research funding, see story on page 4)

The UBC mission statement released last week says the University must double its graduate-student enrolment and more than double its research effort if it is to serve the educational needs of B.C. adequately over the next 10 years.

Dr. Kenny, addressing the Joint Faculties, said UBC has the potential to become a university of world stature over the next decade, provided it is adequately funded.

Dr. Kenny described the University's mission in broad terms as serving society by providing for the intellectual development of its students, providing intellectual leadership for society and contributing to and encouraging the development of Canadian culture.

He said that three major social changes — an aging population, advances of technology and the accelerating impact of technology on society — would affect public attitudes about universities and university planning.

He said these trends would bring society to expect universities to meet demands for more sophistication in the job market, would force Canadians into increased technological competition with other nations, and would require first-class continuing education for the professions. There would be a need for graduates who could evaluate and explain the nature of the immense social changes coming over the next few decades.

The University of B.C., because of all of these trends, must put increasing emphasis on the development of its graduate programs and on additional research activity, Dr. Kenny said.

He called for a doubling of the number of graduate students at UBC to at least 6,000 by 1990 and for an increase in research funding to at least \$50 million (in 1978 dollars) from the current level of under \$25 million.

These were just two of 17 "1990 objectives" listed by Dr. Kenny, who closed his statement by emphasizing that UBC must co-operate with the University of Victoria and Simon Fraser University to avoid costly and unnecessary duplication of facilities or research.

In noting that UBC already ranked near the top nationally, he suggested that no provincial government could afford more than one primary university with a heavy emphasis on graduate studies, research and professional schools. The choice, he said, was one first-class university and some "other" universities, or instead, several "other" universities and no primary institution.

Dr. Kenny said UBC had developed the infrastructure to achieve international stature but still had some way to go.

He said Canada cannot afford to be without a strong university system, "for society depends on the universities to produce the innovation, the professionals, the thin stream of excellence which adds to economic and cultural gains."

Yet only 4.7 per cent of Canadians are university graduates, he said, compared to 10.5 per cent in the U.S. And in British Columbia, he said, only 15.6 per cent of those in the 18-to-24 age bracket attend post-secondary institutions, compared to 19.8 per cent for Canada as a whole. Dr. Kenny listed an improved "participation rate" as one of UBC's objectives for the decade.

"Surely, a stronger province and economy requires more than a bal-

anced budget. British Columbia can ill afford its low educational base if it is to maintain its place in an increasingly sophisticated and technologically oriented world. It is up to our academic community, and, in particular, the provincial government, to determine the outcome of this challenge."

Among his objectives for UBC, the University president also listed:

- Student accessibility. "So that none are excluded solely because they lack the necessary funds."

- New programs responsive to social needs. "The University should capitalize on its position as a Pacific Rim university by encouraging teaching and research which will foster increased understanding and associations with Asian countries and their universities."

- "To foster co-operation between University researchers and those in business, industry and government. The initiation of a Discovery Park on campus is a first step in this direction."

- To strengthen UBC's academic and career counselling services.

- To make sure that part-time students (now 21.1 per cent of the UBC enrolment) have the opportunity to complete their degree programs. "Students must be provided with the opportunity to combine work experience with higher education."

- To increase public access to UBC services and facilities such as the library, computing centre, Museum of Anthropology, botanical gardens and the research forest at Haney. "The objective is to provide the general public with opportunities to participate in University projects and to develop active interfaces with the University."

In closing, Dr. Kenny described the academic environment at UBC as "only moderately good, even though it is probably the best in Canada."

A limited number of copies of the mission statement are available. Interested members of the University community who want a copy can obtain it from UBC Information Services, second floor, Old Administration Building, or by calling 228-3131.

Service from parking lots starts Jan. 7

Students returning in January will have pleasant relief from those dark and rainy morning treks in to the central campus from the B lots. Starting Monday, Jan. 7, busses will be available in the parking lots to take students to two locations — University Boulevard and Main Mall, and the Bookstore.

The new service will begin at 8:10 a.m. and continue every four minutes until 9:30 a.m. Monday through Friday. It's an experiment, says Al Hutchinson, superintendent of Traffic and Security, until March 28, to see how many people use the bus service and whether it serves their needs.

The four busses being used will be chartered from B.C. Hydro, complete with drivers. The busses would normally have finished their morning rush hour runs and would have been "deadheaded" on the campus at that time. They'll be clearly marked "Special" and will be free of charge to passengers.

The morning service is in addition to the free evening service organized by Traffic and Security to take students studying in the Main and Sedgewick Libraries at night back to the residences and B lots. A UBC-owned mini-van makes regular runs from 7:30 to 10:45 p.m. Sundays through Thursdays from the Bookstore down to Place Vanier and Totem Park, then out to B lot. It returns from B lot along the Main Mall to the Bookstore again.



Dr. John McCreary



Dr. Walter Koerner

UBC names new centre for late medical dean

The Health Sciences Centre of the University of British Columbia has been re-named the John F. McCreary Health Sciences Centre as a tribute to the man responsible for the centre concept.

Dr. McCreary, former dean of medicine at UBC and a champion of the team approach to health care, died of a heart attack at his home in Gibsons, B.C., on Oct. 14.

The McCreary Centre includes the 300-bed Purdy Extended Care Unit, the 60-bed Psychiatry Unit and the Psychiatry Day House Unit, the

240-bed Acute Care Unit, the University Health Service Hospital, and the two Community Health Centres.

UBC's Board of Governors, in naming the centre after Dr. McCreary, also voted to honor Walter C. Koerner, the man largely responsible for turning the McCreary concept into reality, by naming the newest structure in the centre the Walter Koerner Acute Care Unit. The unit is expected to admit its first patients early next spring.

As president of the Association of Canadian Medical Colleges from 1963 to 1966, Dr. McCreary persuaded the federal government to set aside \$500 million in a health resources fund to build health education buildings across Canada.

At UBC, where he was dean of medicine for 13 years before becoming co-ordinator of health sciences, Dr. McCreary's objective was to have students in the health sciences trained in close association with each other so that as working professionals, each would know the competence and limitations of the other professions.

The government of Canada recognized Dr. McCreary's achievements by awarding him a Centennial Medal in 1967 and by investing him as an Officer of the Order of Canada in 1974 for "contributions to the advance of medical research and the teaching of medicine."

Walter Koerner has been closely associated with the University for many years, sponsoring numerous scholarships and inaugurating research projects. In 1958 he contributed \$375,000 toward construction of the south wing of the UBC Library, and a special gallery of the Museum of Anthropology houses the Walter and Marianne Koerner masterwork collection of West Coast Indian art.

Dr. Koerner served for 15 years — the maximum permitted under the Universities Act — as a member of the UBC Board of Governors, and was board chairman from 1968 to 1970. He is chairman of the management committee of the health sciences centre, and has held that position for all but two years of the centre's 15-year existence.

In 1964, while a member of the Economic Council of Canada, Walter Koerner received honorary degrees from the University of New Brunswick and from the University of Victoria. He received an honorary Doctor of Laws degree from UBC in 1973.

EROSION PLAN

Continued from page 1

with the Point Grey cliffs," Weston says in his report.

"Except for the storm drain area there does not appear to be any need for urgent action in regard to beach defenses."

Weston also says that before any beach work is started, people interested in the area should be advised of continuing developments.

Weston said he received 33 briefs from groups and persons interested in the cliffs and the beaches, which were discussed at a series of public meetings. There was also a guided public tour of the area on Nov. 3.

He notes in his report that 50 years ago most of the beaches of English Bay were similar to the Wreck Beach and Tower Beach of today, and says "recognition of the genuine desire to preserve this disappearing species of environment is of primary concern."

Weston says that UBC students and their teachers should be involved as much as possible "in every operation connected to the erosion control work."

He says that an experimental area of erosion could be reclaimed by filling from the top, and says that documentation, survey and photographic work could be done by students as part of an environmental study and report. He notes that monitoring of materials and placement of materials is a normal function of a junior engineer and says this could be a work-and-learn job for interested student engineers.

"Certainly, arrangements should be made to encourage and use the input of the experience and knowledge available in the UBC community — faculty, students, staff and general public," Weston says in his report.

Registrar sees himself as academic ombudsman

A lot of people at UBC were frankly surprised when they heard Registrar Jack Parnall was retiring at the end of December, 1979.

"You must be retiring early," they said to him.

"No. I'm 65."

"Well, you certainly don't look it," they'd say.

And they're right. He doesn't.

Even at close range hardly a single white hair shows in the midst of a full head of black hair and the lines on his face are laugh lines, because Jack Par-

nall smiles a lot and is noted for his evenness of temper.

And this despite that fact that for the past 28 years he's had a UBC job that one of his colleagues says "would turn most people's hair grey overnight."

Jack Parnall admits that the idea of becoming associate registrar when he was offered the job in 1951 didn't exactly appeal to him. "From the outside," he says, "it looked like a dreadful job... chained to a desk... all that paperwork. I decided to take it on when the then president, Larry (Dr. Norman) MacKenzie, agreed to let me teach in the Department of Mathematics as well."

And being registrar has turned out to be a whole lot more interesting than Jack Parnall thought it would be. "The Registrar's Office," he says, "is a sort of campus crossroads. You're involved with everyone from students to top University administrators and because the registrar is also the secretary to all 12 faculties and to the Senate (UBC's academic parliament) you see the big picture of what's happening academically at UBC."

Those functions, plus the fact that UBC has a centralized admissions procedure, enables the registrar to act as a sort of academic ombudsman and a builder of bridges between faculties, he says.

UBC is probably the only large university left in Canada that centralizes its admissions procedures and its records, Mr. Parnall says. At most Canadian universities the faculties are responsible for admitting students and looking after record keeping. At UBC, a few faculties, e.g. Medicine and Law, have their own admissions committees, with the UBC registrar as a member.

Centralization has some real advantages. "It enables us to alert people to potential problems and be helpful to both students and faculty," Mr. Parnall says, "and the ombudsman function arises when a student gets fed up with a faculty decision and comes to us for help. We can take up the student's problem with the faculty and try to get them to look at it from a different point of view."

Centralizing record keeping also enables the Registrar's Office to be helpful to students who want transcripts of their marks in a hurry or need a letter written on their behalf. "We go to endless trouble to certify students' credentials for use in foreign countries," Mr. Parnall says. "And because we know all the routines because of years of doing it, we're able to provide students with an efficient service."

Jack Parnall believes that top UBC administrators should also be teachers. "That's a rather old-fashioned idea now," he says, "but it does enable you to keep in touch with faculty and student concerns."

He adds, with a smile: "It also puts you on the same footing with a colleague who's been tardy getting his marks in. You can call him up and say, 'I've marked my 120 papers,

what's holding you up.' I've had to do that more than once."

Jack Parnall also feels that the growth of UBC has been a good thing. "UBC is a far better place than it was in my days here as a student," he says. "It's better academically, there are far greater opportunities in terms of future careers, and the library collection is very significant. It's all very well to indulge in nostalgia for the old days, but I think we'd be missing a lot if we hadn't grown."

He's also solidly behind moves to upgrade admission requirements to the University and academic standards within the University. "High quality attracts people," he says, "and the appeal of the University will always be enhanced by maintaining admission standards and by insisting on quality work throughout the student's university career."

"We should continue to review the attainment of potential students as well as the work of those we admit, as UBC has over the years. And where we find they're not capable of doing university-level work, they should be counselled to enrol elsewhere in order to build up their academic background."

It's obvious in talking to Jack Parnall that his most satisfying moments have come in the classroom as a teacher of mathematics. He says he wanted to be a teacher when he enrolled in the early 1930s at Victoria College, then affiliated with UBC, where he encountered the late Walter Gage, the teacher par excellence.

Jack Parnall taught high school math for 11 years, served as a meteorological officer for the RCAF during the second World War, and then joined the UBC teaching staff for two years (1945-47) when the campus swelled almost overnight from 2,500 students to 10,000 as the veterans returned from overseas.

He went back to high school teaching for four years until 1951, when he was persuaded to return to UBC as associate registrar and mathematics lecturer. He became UBC's registrar in 1957 on the retirement of C.B. Wood and continued to teach until 1975.

Colleagues claim that Jack Parnall's math lectures — like those of Walter Gage — were swollen by students who had heard that he had a talent for making the subject plain. He admits that his teaching style was basically modelled on that of Walter Gage.

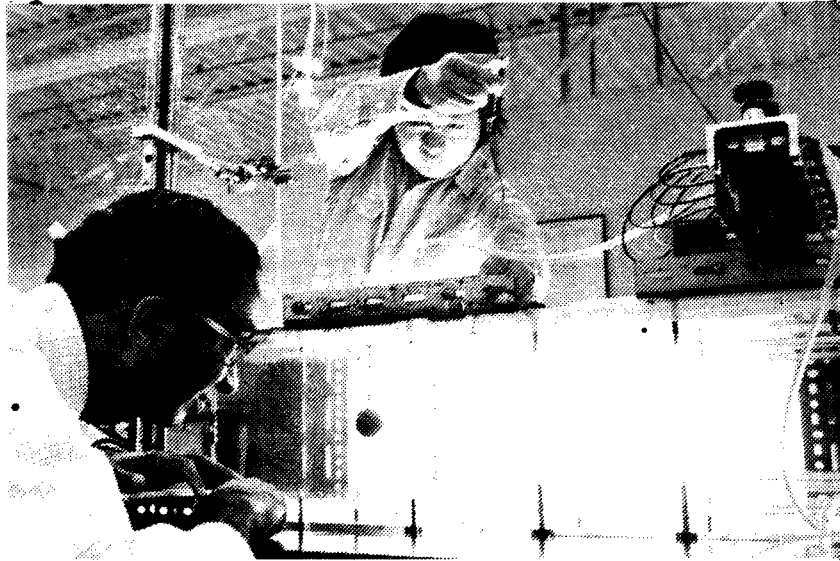
In retirement, Jack Parnall has "gone back to his roots," as he puts it. With his popular wife, Edna, he's purchased a house on half an acre of land on Saanich Peninsula just north of his hometown. "I started out thinking I'd like five acres," he says, "but recently I've decided that half an acre will be quite enough."

He plans to grow roses "and some other things like raspberries that I didn't have room for in the city," read a lot of ancient history ("I'm particularly interested in the Egyptians and cultures of that period"), and take in plays and concerts in nearby Victoria.

Along the way, Jack Parnall has picked up his share of honors. The Pacific Association of Registrars and Admission Officers awarded him its President's Plaque in 1971 and earlier this year the same organization presented its distinguished service award to him. He also served as president of the Canadian Association of University Registrars.

The citation for the Pacific Association's service award emphasizes Jack Parnall's wit and his ability "to recognize the humorous aspects of his job."

Which may be the real reason why Jack Parnall looks 15 years younger than he is.



Brian Kent photo

Prof. V.J. Modi, left, of UBC's mechanical engineering department, is a key figure in development of a new artificial heart valve in collaboration with Dr. Richard T. Brownlee, chief of cardiac surgery at Royal Jubilee Hospital in Victoria. Graduate student Toshi Akutsu also worked on the project.

Heart valve development aided by UBC engineers

An artificial heart valve vastly superior to any now in use is being developed in B.C.

So far the valve has performed about 10 times better than any other valve under laboratory conditions.

The inventors, a UBC mechanical engineer, a heart surgeon and three research assistants, are confident they can further improve the performance of the valve.

After design improvements, the next step will be to test prototypes of the valve in calves.

The valve marks 10 years of collaboration between Prof. Vinod J. Modi of UBC's Department of Mechanical Engineering, and Dr. Richard T. Brownlee, chief of cardiac surgery at the Royal Jubilee Hospital in Victoria.

"Since the first artificial heart valve was implanted in a human patient 18 years ago, thousands have been used to replace leaking, worn-out or otherwise defective natural valves," said Dr. Brownlee.

"A number of different models have appeared on the market, each selling for more than \$1,000.

"Usually a cardiac surgeon has been the primary inventor. Little advanced engineering has been applied to their development. There has been virtually no co-operation between medicine and engineering in designing the valves."

One model is similar to a ping pong ball which moves back and forth in a mesh cage, opening and closing the valve opening. Another is like a coin that pivots on a hinge.

The valves do not have a long life. Failure may occur after a few months or a few years. The average life of an artificial valve is about three years. The valves form blood clots, destroy red blood cells, clog, leak, stick or cause infections, and their mechanical parts can wear out. Ironically, the original valve implanted 18 years ago is still operating.

Prof. Modi said the new valve was invented after the team had systematically studied the five most popular artificial mitral valves. The mitral valve is the most likely to fail of the four valves of the heart.

"There was little information of the relative strengths and weaknesses of valves now being implanted," said Prof. Modi. "Although surgeons tend to favor one or other model over others, there wasn't objective information to support their choice."

"So we built a working mechanical model of the heart and subjected the five artificial mitral valves to a series of tests."

"We measured how much energy was needed for the heart to pump blood through the valves, how large the valves opened, and the drop in pressure across the valves. We are now measuring shear stresses and turbulence generated by the valves."

"Shear stress is important because if it is too high, it can destroy red blood cells."

"In all tests, the best was the Ionescu-Shiley valve, and the worst was the Hancock valve."

The valve testing work was supported by the Canadian Heart Foundation and the National Research Council.

The new valve closely resembles the natural mitral valve. It consists of two cusps made from material from a calf's pericardium or part of the heart, attached to a rigid frame.

Here is how the new valve compared with the Ionescu-Shiley valve, the best of the valves now in use.

The new valve's maximum opening is 55 per cent greater, allowing for more blood to pass. The pressure drop was only 15 per cent of Ionescu-Shiley's and the energy loss was almost zero compared with eight per cent for Ionescu-Shiley.

A low pressure drop and energy loss means a more efficient valve.

Essay fund set up

A fund to provide an annual essay prize for a student in English 100 has been established by friends and colleagues of the late Betty Belshaw. Members of the University community who wish to make contributions may do so by sending cheques, made payable to the University of B.C., to Prof. Jan de Bruyn, Department of English, Campus. Donors should indicate the name of the fund on the cheque or an accompanying letter.

UBC Calendar

UBC CALENDAR DEADLINES

Events in the period

Dec. 16-Jan. 5 Deadline is 5 p.m. Dec. 6
Jan. 6 to Jan. 12 Deadline is 5 p.m. Dec. 27

UBC Calendar will not be published between Dec. 12 and Jan. 1, 1980. Normal publication will resume Wednesday, Jan. 2

Send notices to Information Services, 6328 Memorial Road (Old Administration Building), Campus. Further information is available at 228-3131.

SUNDAY, DEC. 9

3:00 p.m. **MUSEUM OF ANTHROPOLOGY.** Three N.F.B. Christmas films, Christmas Cracker, A Christmas Fantasy and Christmas Lights, will be shown. 6393 Northwest Marine Dr.

8:30 p.m. **MUSEUM OF ANTHROPOLOGY ON T.V.** with Arthur Erickson, architect; Dr. Michael Ames, museum director; and Julie Martell. Channel 10, Vancouver Cablevision.

MONDAY, DEC. 10

9:30 a.m. **B.F.A. CRITIQUES**, an opportunity to see work by B.F.A. students and to hear discussions and critiques on their fall term work. Art Gallery, Student Union Building. Continues until 3:30 p.m.

12 noon **CANCER RESEARCH SEMINAR.** David Josephy, Medical Biophysics Unit, B.C. Cancer Research Centre, on **Toxicity of Misonidazole: Chemistry and Biochemistry of a Radiosensitizer.** Lecture Theatre, B.C. Cancer Research Centre, 601 W. 10th Ave., Vancouver.

4:00 p.m. **BIOCHEMISTRY SEMINAR.** Dr. A.R. McLeod, MRC Laboratory of Molecular Biology, Cambridge, England, on **Characterization of the mRNA and Protein Products of the unc-54 Myosin Heavy Chain Gene of *C. elegans*.** Lecture Hall 3, Woodward Instructional Resources Centre.

4:30 p.m. **BIOMEMBRANE SEMINAR.** Dr. Lance Liotta, National Institute of Health, Bethesda, Maryland, on **Basement Membrane Collagen and Tumor Cells.** Lecture Hall 3, Woodward Instructional Resources Centre.

IMMUNOLOGY SEMINAR. Dr. Julius Gordon, Surgery, McGill University, Montreal, on **Mechanisms of Anti-Tumor Immunity.** Room 201, Wesbrook Building.

TUESDAY, DEC. 11

9:15 a.m. **PSYCHIATRY CLINICAL CONFERENCE.** Dr. Phil Long on **Computerized Psychiatric Diagnosis.** Lecture Hall B, Vancouver General Hospital.

4:00 p.m. **BIOCHEMICAL SEMINAR.** Dr. Savio L.C. Woo, Cell Biology, Baylor College of Medicine, Houston, Texas, on **The Expression of the Ovalbumin Gene and Its Pseudogene in Chicken Oviduct and in Mouse L-Cells.** Lecture Hall 3, Woodward Instructional Resources Centre.

WEDNESDAY, DEC. 12

12 noon **PHARMACOLOGY SEMINAR.** Dr. John D. Steeves, Zoology, UBC, on **The Mesencephalic Locomotor Region in the Decerebrate Cat: Projections and the Role of Noradrenaline.** Room 114, Block C, Medical Sciences Building.

THURSDAY, DEC. 13

12 noon **ACADEMIC WOMEN'S ASSOCIATION.** Buffet Lunch, Salons A, B and C, Faculty Club.

12:30 p.m. **SIGMA XI RESEARCH CLUB** presents Dr. George Hatem, People's Republic of China, on **A Program in Social Engineering: The Control of Venereal Disease in the People's Republic of China.** Lecture Hall 3, Woodward Instructional Resources Centre.

12:30 p.m. **NOON-HOUR TRAVELS with Zoologists.** Drs. W.S. Hoar, C.C. Lindsey and G.G.E. Scudder, Zoology, UBC, on **Khabarovsk — Far Eastern Siberia.** Room 2000, Biological Sciences Building.

6:30 p.m. **YOUNG ALUMNI CLUB Christmas Party** with tree decorating, carolling, and Christmas goodies. Full facilities. Continues until midnight at Cecil Green Park. Final year and graduate students may join. For information, call 228-3313.

FRIDAY, DEC. 14

9:00 a.m. **PEDIATRIC GRAND ROUNDS.** Dr. R. Tonkin, Population Paediatrics, UBC, on **Violent and Self-Destructive Behavior in Childhood.** Lecture Hall B, Heather Pavilion, Vancouver General Hospital.

SATURDAY, DEC. 15

10:00 a.m. **CHRISTMAS TREE SALE.** Sixty large *Abies* trees will be sold at \$2 per foot by Forestry students to finance their field tour expenses. South Campus Research Area.

8:00 p.m. **VANCOUVER PHILHARMONIC ORCHESTRA**, directed by Jerry Domer, performs **Music of Dvorak, Holst, Castelnuovo-Tedesco and Prokofieff.** Old Auditorium.

EUROPEAN OLD MASTER DRAWINGS

A collection of 40 European drawings, ranging in date from the 16th to 18th centuries are on view at the Fine Arts Gallery, basement, Main Library, until Friday, Dec. 21; Tuesday to Saturday; 10 a.m. to 5 p.m. The works constitute a portion of the permanent collection of the Art Gallery of Greater Victoria.

AMS ART GALLERY

Work done by B.F.A. visual arts students will be exhibited for critical assessment by B.F.A. instructors and fellow B.F.A. students from Monday, Dec. 10 until Saturday, Dec. 15; 10:30 a.m. to 3:30 p.m. Interested observers welcome. Art Gallery, Student Union Building.

FINAL ORAL EXAMINATION FOR THE DEGREE OF DOCTOR OF PHILOSOPHY

Listed below are scheduled final examinations for the degree of Doctor of Philosophy at the University. Unless otherwise noted, all examinations are held in the Faculty of Graduate Studies Examination Room, General Services Administration Building.

Friday, Dec. 14, 9:30 a.m.: **YVES FORTIN, Forestry; Moisture Content-Matric Potential Relationship and Water Flow Properties of Wood at High Moisture Contents.**

FOOD SERVICES OPERATING HOURS — CHRISTMAS 1979

UNIT	DATE
Residence Food Services	
Gage "Deli"	Closed after Dec. 14, 1979 — open Jan. 7, 1980
Gage Coffee House	Closing and opening times posted in Gage
Place Vanier and Totem Park Dining Rooms	Closed after dinner Dec. 21, 1979; Open breakfast Jan. 7, 1980
Campus Food Service	
Auditorium Snack Bar	Closed after Dec. 14, 1979 — open Jan. 7, 1980
Buchanan Snack Bar	Closed after Dec. 12, 1979 — open Jan. 7, 1980
Barn Coffee Shop	Closed after Dec. 21, 1979 — open Jan. 7, 1980
Bus Stop Coffee Shop	Closed after Dec. 21, 1979 — open Jan. 7, 1980
Education Building Snack Bar	Closed after Dec. 14, 1979 — open Jan. 7, 1980
Gym Snack Bar	Closed after Dec. 7, 1979 — open Jan. 7, 1980
I.R.C. Snack Bar	Closed after Dec. 21, 1979 — open Jan. 8, 1980
International House Snack Bar	Closed after Dec. 7, 1979
Ponderosa Snack Bar	Closed after Dec. 7, 1979 — open Jan. 7, 1980
STUDENT UNION BUILDING SNACK BAR	
Dec. 13	Last day for Cafeteria service
Dec. 14	Snack Bar only, 7:45 a.m. — 6:00 p.m.
Dec. 15, 16	Regular hours (Sat., 9:30 a.m. — 3:30 p.m.; Sun., 11:00 a.m. — 6:00 p.m.)
Dec. 17, 18, 19, 20	7:45 a.m. — 7:00 p.m.
Dec. 21	7:45 a.m. — 4:00 p.m.
Dec. 22, 23, 24, 25, 26	CLOSED
Dec. 27, 28	7:45 a.m. — 4:00 p.m.
Dec. 29, 30	CLOSED
Dec. 31	8:30 a.m. — 3:30 p.m.
Jan. 1, 1980	CLOSED
Jan. 2, 3, 4	7:45 a.m. — 4:00 p.m.
Jan. 5, 6	CLOSED
From Jan. 7, 1980	REGULAR SCHEDULE

Canada's university research establishment has a spring in its step this week as the result of the announcement by the federal government that it will increase by 32 per cent the funds available to the Natural Sciences and Engineering Research Council (NSERC).

The federal announcement represents a major triumph for the Canadian research community, which has been lobbying for more than half a decade in an effort to convince the government to stop the decline in the real value of research support.

The increase will add \$39 million to the funds available to NSERC, which will have \$159.8 million available for the support of university research in 1980-81. It's estimated that UBC researchers will benefit by at least \$3 million in the coming year.

The increase in research funds applies only to NSERC, which makes grants for basic and applied scientific research and for research in "national problem areas," including energy, environmental toxicology, food production and oceanography.

The federal government said it would announce later plans for providing support for the Social Sciences

Canadian scientists get massive increase in research funding

and Humanities Research Council and the Medical Research Council.

The federal decision to increase research funding marks the first step toward financing a five-year plan prepared by NSERC. The plan calls for beefing up the training of highly qualified manpower, improving links between university and industrial research, improving support for basic research and "targeted" research in areas of national concern, and the replacement of scientific equipment which has become obsolete over the last decade.

In making the announcement, federal minister of state for science and technology Heward Grafftey admitted

that university research, particularly in the natural sciences and engineering, "had been eroded in the 1970s due to a decline in the real value of federal support, declining enrolments and a low turn-over of university staff."

Dr. Richard Spratley, UBC's research administrator, said that research funding at UBC was "very close to a crisis in the early 1970s. We were looking at increases of only 5 to 6 per cent a year as against an inflation rate of 15 to 20 per cent a year in the scientific cost of living, which is considerably greater than the ordinary cost of living."

He said UBC's problems were com-

pounded by the declining value of the Canadian dollar, which resulted in above-average increases in costs for supplies and equipment, much of which has to be purchased abroad.

Dr. Spratley added that over the past two years there has been "a heartening increase" in funding from provincial agencies, from the B.C. Science Council and from the private sector through such agencies as the Canadian Cancer Society and the B.C. Heart Foundation. "The B.C. Health Care Research Foundation created by the provincial government is making an important contribution," he said, "by investing some \$2.5 to \$3 million annually in health research."

He said the increases in funding from provincial, federal and private sources will mean that universities will substantially increase real-dollar support for scientific research and overcome the decline resulting from inflation.

In the last (1978-79) fiscal year, UBC received nearly \$26 million for all types of research, an increase of 23 per cent over the previous year. The federal government's contribution to the total was 64 per cent, down from a peak 78 per cent in 1972-73.

