

# UBC REPORTS

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November 21, 1985

## President Strangway places top priority on long-term planning

Long-range planning about UBC's future is a top-priority item on the agenda of the University's new chief executive officer, Dr. David Strangway.

The president said he welcomed the steps that had been taken at the Senate meeting of Nov. 13, when UBC's academic parliament approved a motion that will require its budget committee to bring to Senate for debate and approval any specific advice the committee formulates on long-term academic priorities before advising the president.

"Obviously, Senate is going to be involved in matters related to long-range planning because of the responsibility it has for the academic governance of the University," President Strangway added.

He said UBC "must undertake long-range planning in order to make clear its distinctive mission in the array of institutions in B.C. higher education."

He added that UBC is one of the three leading research-intensive universities in Canada and was, therefore, both a provincial and national resource.

The motion requiring Senate's budget committee to seek Senate approval on long-range planning proposals came following an hour-long discussion of an annual report to Senate from the committee, which outlined the consequences of retrenchment for UBC's faculties in the 1985-86 fiscal year.

Prof. Jonathan Wisenthal, associate dean of UBC's Faculty of Arts, said Senate had on record some excellent documents on the criteria to be employed when academic priorities are being considered.

"However, Senate as a body has not discussed the academic direction of the University for at least ten years. We have never engaged in serious discussion on long-range academic priorities, appropriate balances within the University and appropriate areas for growth and development, for example."

Prof. Wisenthal suggested the Senate budget committee might bring forward for Senate discussion a statement that addressed three areas: UBC's commitment to graduate education as opposed to undergraduate work; the relationship between the first two years of undergraduate work and the second

two years; and UBC's place in the world of higher education in B.C.

"If we don't debate this and adopt a position and argue it vigorously in the province, our position will be decided for us by bodies outside the University," he said.

Prof. Wisenthal was followed by UBC's acting vice-president academic, Dr. Daniel Birch, who told the meeting that the Universities Council of B.C. would meet in December to consider a draft report prepared in response to the provincial government's request for a five-year plan for B.C. universities.

He told Senate the Council had collected statements and other information from a number of sources, including statements on institutional missions from the presidents of each of the public universities.

He said it was "a matter of great concern to the universities that their

opportunity to participate in the long-range planning process had been very limited up to this point."

UCBC, Dr. Birch added, would meet on Dec. 9 and 16 to consider the planning document and would forward it to the government "almost immediately thereafter."

Lee Southern, secretary to the Council, told *UBC Reports* this week that the universities would have plenty of opportunity to respond to the Council report.

The report, he emphasized, does not commit the universities to a five-year plan and is intended to serve as the basis for continuing discussions between the council and the universities.

He said the report examines five

Please turn to Page 2  
See PLANNING



George McLaughlin

## McLaughlin elected to UBC Board

George McLaughlin, an electrician in the Department of Physical Plant and vice-president of C.U.P.E. Local 116, has been elected to the UBC Board of Governors.

He replaces Victor Doray, former director of Biomedical Communications, who took early retirement this year. Mr. McLaughlin will complete Mr. Doray's unexpired term of office, ending Jan. 31, 1987, as a representative of UBC fulltime employees who are not faculty.

Mr. McLaughlin is a native of Scotland, where he began his apprenticeship as an electrician and served with the British Merchant Navy as an electrical engineer. After earning technological certificates in electrical construction, electronics and marine electrical engineering from James Watt Memorial College in Greenock, Scotland, Mr. McLaughlin immigrated to Canada and worked in the construction industry until 1977, when he joined the UBC staff.

Mr. McLaughlin began studies in economics, arbitration, negotiations and collective bargaining at Capilano College in 1981, and in 1984 graduated from the Canadian labor studies program at the University of Ottawa. He has been active as a trade unionist since 1966 and has served as vice-president of C.U.P.E. Local 116 since 1981.

"Many University problems need to be addressed, including the current trend of stress in the workplace, the lowering of working conditions and standards as well as the effectiveness and efficiency of the University," Mr. McLaughlin said in a statement distributed to voters before the election. He added that he intends to provide "a strong voice" for the non-academic employees of UBC in the governance of the University.



Science Dean Robert Miller, right, and associate dean Dr. David Dolphin, above, were recently awarded three strategic grants from the Natural Sciences and Engineering Research Council (NSERC). Dr. Dolphin received funds for studies in cancer research and the study of liquid crystals. Dr. Miller is conducting research on the cloning of enzymes that convert waste products into raw material for the petrochemical industry. See story on Page 3.

## Man-in-Motion

**Update: Nov. 21, 1985.** Rick Hansen has travelled 10,000 miles on his round-the-world-wheelchair tour to raise funds for spinal cord research and rehabilitation, and is currently in Rome, Italy. Contributions in B.C. so far total \$470,551. If you'd like to make a donation or help with the tour administration, please call 687-5200.



# CAMPUS PEOPLE

**Prof. William Unruh** of the Department of Physics was recently chosen to give the prestigious Rutherford Lecture to the Royal Society of the U.K. Dr. Unruh, one of only two Canadians ever invited to give the Rutherford Lecture, represented the society's daughter organization, the Royal Society of Canada. Dr. Unruh is an internationally known cosmologist who has earned numerous honors in recent years, including the Herzberg Medal from the Canadian Association of Physicists, the Steacie Fellowship from the Natural Sciences and Engineering Research Council of Canada and the Steacie Prize from the National Research Council.

## Tennis Center open year-round

Many people think of tennis as a summer sport, but at the UBC Tennis Center the activity continues year-round.

The Tennis Center, which was established five years ago, offers playing time seven days a week on 10 outdoor courts, eight indoor courts and four grass courts as well as private and group lessons, membership in the UBC tennis club, tennis leagues, tournaments for players of every level, a pro shop and even tennis vacation packages to places such as Hawaii, California and Mexico! The facilities and services are open to the public as well as members of the University community.

The centre is operated by director Patricio Gonzalez, a UBC physical education graduate with 20 years of playing experience and 14 years in professional coaching and management, and Mike Kerr, an MBA graduate from the United States International University in San Diego, who coaches UBC's men's varsity tennis team.

"Our goal is to develop one of the most extensive tennis centres in Canada and to provide broad-based programs for both recreational players from the community and elite athletes," says Gonzalez. "We hope that people on campus will spread the word that our facilities are open to everyone and that our activities are geared for players of every level."

He adds that UBC has already established a reputation as a leading training centre for talented young tennis players. "The unique facilities we have at UBC make it possible for top players to combine a university education and high-level athletic training." (UBC's Tennis Bubble, located at the corner of Thunderbird Boulevard and East Mall, is used by Tennis Canada for its Junior High Performance Program.)

For information on tennis hours and activities, call 228-4396.

## Planning

*Continued from Page 1*

aspects of higher education, including provincial government expectations about universities, the state of academic development in the universities, the financial requirements of the university system, university accountability and the organization and cooperation necessary to carry out future planning.

Mr. Southern said the five-year planning document would be made public after it had been put in the hands of the presidents of the three public universities and the government.

A dinner in honor of UBC benefactor **Dr. Walter Koerner** will be held in the Faculty Club tonight (Nov. 21).

He will receive the Brock House Medal and \$5,000 as 1985's outstanding senior citizen of B.C. The award, sponsored by the Brock House Society and supported by the Bank of Montreal, is given to a Canadian citizen living in B.C. who is 65 or older and who has made a distinguished voluntary contribution to the community.

Dr. Koerner's contributions to UBC have been enormous. He is a former chairman of the Board of Governors and of the UBC Health Sciences Centre. The 240-bed acute care unit of the University hospital is named after him. Among current health projects he is involved in is UBC's Imaging Research Centre, which uses the most advanced methods now available to image the internal structure and function of the body.

Dr. Koerner and his wife, Marianne, made a gift to UBC's Museum of Anthropology before construction of the museum began of their collection of Northwest Coast Indian art. A further gift to the museum was "The Raven" carved by Bill Reid and unveiled by Prince Charles. They have also made significant contributions to UBC for the expansion of the Library.

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**Prof. Peter Pearce** of the Faculty of Forestry was chairman of a three-member federal government enquiry on water policy that has recommended that Canadians be encouraged to conserve water by having to pay more for it. The commission's final report, entitled "Currents of Change," says Canadians should also pay more for getting rid of their waste water.

The commission also found that:

- Canada takes more water per head of population out of its rivers, lakes and groundwater sources than any other country except the U.S. and twice as much as some European countries;

- Canada is "extraordinarily well endowed" with high-quality water compared to other countries, but this does not apply to all areas of the country and competing pressures for it use are mounting; and

- Canada's most serious water-use problems involve degraded water quality and disrupted flows and a more comprehensive program for preventing "toxic and persistent substances" from entering the natural environment is recommended.

Also recommended are a vigorous effort to control acid rain and a concerted approach to establish minimum standards for drinking-water quality throughout the country.

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Professor emeritus of soil science **Dr. David Laird**, who joined the UBC faculty in 1921, died on Oct. 16, six days after his 96th birthday. Born in Prince Edward Island and educated at the Universities of Toronto and Wisconsin, Dr. Laird was a faculty member for 33 years until his retirement in 1954 as chairman of the Department of Soil Science in the Faculty of Agricultural Sciences.

Dr. Laird continued to take an active interest in UBC after his retirement and for many years was an active participant in Alumni Association-sponsored events. He is survived by his wife, Geraldine.

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**Dean James Richards**, head of the Faculty of Agricultural Sciences, formally signed an agreement with Fraser Valley College recently under which some of the faculty's academic and professional development courses will be made available to valley residents.



**Patrick Buchannon**

**Patrick Buchannon**, assistant director of Student Housing and Conferences, has been elected president of the UBC Association of Administrative and Professional Staff.

He succeeds **Elizabeth Orne**, who recently left the Department of Mathematics to join the financial systems department and who remains on the AAPS executive as past president.

Other members of the 1985-86 executive are: **Diana Crookall**, Biochemistry, first vice-president; **George Bradley**, Zoology, second vice-president; **Bob Frampton**, Housing and Conferences, secretary; **Merilyn Forsyth**, Geological Sciences, treasurer; and **Dan Worsley** (Awards and Financial Aid), **Theresa Roberts** (Medical Genetics), **Joe Nagel** (Geological Sciences) and **Jane Corcoran** (Dean of Arts Office), members-at-large.

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The Canadian Institute of Forestry has awarded its 1985 Canadian Forestry Scientific Achievement Award to **Dr. Vladimir J. Krajina**, professor emeritus of botany at UBC.

During his 33 years as an active member of the UBC faculty, Dr. Krajina became widely known for the development of a biogeoclimatic classification of B.C. and adjacent northern regions. This led to the B.C. forest ministry embarking on a program which utilized Dr. Krajina's research to apply ecologically sound practices to forest management.

Even in retirement Dr. Krajina continues to take an interest in the establishment of ecological reserves, undisturbed areas of Crown Land set aside for research and educational purposes and which function as benchmark areas to measure the effects of change, as banks of genetic material and as areas for preserving unique or endangered plants and animals.

Recently, Dr. Krajina was informed that two new reserves—numbers 114 and 115—had been set aside by the provincial government at Williams Creek near Terrace and at Gingietl Creek near Prince Rupert. The reserves now cover 154,501 hectares of B.C. Crown Land.

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**UBC President Dr. David Strangway** will speak on "Magnetic Fields in the Solar System" at 12:30 p.m. on Friday, Dec. 6 in Lecture Hall 2 of the Woodward Building.

Dr. Strangway is one of Canada's leading geophysicists. In the early 1970s

he was chief of the Geophysics Branch of the National Aeronautics and Space Administration (NASA) and was responsible for geophysical aspects of Apollo Missions. He was also acting chief of the Planetary and Earth Sciences Division, responsible for NASA's planetary science program in Houston.

The open lecture is sponsored by the UBC chapter of the Sigma Xi, an international scientific research society.

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A memorial service was held on Nov. 9 for **Prof. Stanley Pech** of the history department, who died on Nov. 4 at the age of 61.

Prof. Pech was born in Hradec Kralove, Czechoslovakia and was educated at Charles University in Prague and at the Universities of Alberta and Colorado. He first joined UBC as a member of the Department of Slavonic Studies in 1956, and began teaching in the Department of History in 1967. A scholar in the field of East-Central European history, Prof. Pech's most recent research activities focussed on the history of nationalist movements in Austria-Hungary.

He is survived by his wife, Vera, and daughter, Irene.

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14 students received awards for outstanding papers presented at the Health Sciences Research Day held on Nov. 2. The 14 winners were chosen from 72 presentations made by undergraduate and graduate students from various health sciences faculties on campus.

Winners were: **Terry Bainbridge**, **Marjorie Johnson** and **Darlene Reid** (Physiology and Pharmacology); **Larry Hill** and **Richard Crawford** (Clinical Investigations); **James Pfaus** and **Voon Wee Yong** (Neurosciences); **Raymond Verhaert** and **David Freeman** (Cell Biology and Biochemistry); **Beth McDonald** and **Terry Starr** (Developmental Disorders); and **Tosca Ma**, **Lucy Haug** and **Michael Chow** (Microbiology and Immunology.)

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UBC's Dean Emeritus of Law, **Dr. George Curtis**, has good cause to remember the years 1945 and 1960.

In 1945 he arrived on the UBC campus to begin the work of creating UBC's Faculty of Law, which he headed for 26 years until 1971 and where he continues to teach on a part-time basis.

In 1960 he watched the Commonwealth Scholarship Plan that he had initiated two years earlier come to fruition with the award of the first scholarships that enabled Canadian students to undertake graduate study in other Commonwealth countries.

October 1985, then, was a month with two milestones in it for Dr. Curtis. On Oct. 18 he was guest of honor and speaker at a dinner in the provincial courthouse downtown to mark the 40th anniversary of the UBC law school, and three days later on Oct. 21 he hosted a 25th anniversary reception for the 32 Commonwealth scholars who are currently enrolled at UBC. Guest of honor at the reception was the Hon. Howard Green, who was Canada's external affairs minister in 1960 when the plan began operation.

Dr. Curtis says that getting UBC's law school on the road and the Commonwealth Scholarship Plan established were "the two most satisfying things that I've been involved with during my 40 years at UBC." Since 1960 some 2,168 scholars have come to Canada under the plan, and 932 Canadians have had to opportunity to forward their studies in other Commonwealth countries.

## Ikea donates \$12,000 for Swedish studies

A total of 22 UBC students were able to start or continue studies in the Swedish language this academic year, thanks to a \$12,000 grant from Ikea Ltd., the Richmond company that imports Swedish furniture and housewares.

The grant has enabled UBC to continue to pay the salary of Gunlog Sundborg, a visiting lecturer from Sweden, who teaches two courses in Swedish in the Department of Germanic Studies of the Faculty of Arts.

Ms. Sundborg suggested that Ikea be approached for support for the language program when it looked as though it might have to be sacrificed because of cutbacks.

Germanic studies department head Dr. Klaus Petersen said it was his hope that Ikea would provide support for the program in future years. He said additional support for the Swedish-language program had come from the Swedish Institute, which fosters activities related to Sweden abroad.

## 1985 enrolment totals 27,309

UBC's winter session enrolment stood at 27,309 students on Nov. 1, the date on which Canadian universities strike their official enrolment figures.

The enrolment total, made up of 25,314 daytime students and 1,995 nighttime and correspondence students, is only 11 students less than the 1984-85 total of 27,320.

The daytime enrolment total is made up of 23,444 undergraduates (up from 23,324 last year) and 3,865 graduate students (down from 3,996 last year). The most notable enrolment increase was in the Faculty of Arts, where enrolment increased by 347 students to 7,032 from last year's 6,685.

# Scientists awarded three NSERC grants

The Dean of Science Office has scored a hat trick. Three Natural Sciences and Engineering Research Council (NSERC) strategic grants have been won by Dean Robert Miller and associate dean David Dolphin.

Dr. Dolphin of the chemistry department is involved in a two-year, \$110,000 grant to study and synthesize new liquid crystals. Liquid crystals are revolutionizing the manufacture of television and other video display equipment by eliminating the need for a master cathode tube to display an image. TVs will be only a few millimetres deep—so thin they could be hung on a wall like a picture—and will consume much less energy than conventional sets.

Dr. Dolphin will be working with Dr. Richard Pincock of the chemistry department, who is co-investigator in the project.

Dr. Dolphin is also participating with Dr. Julia Levy of the microbiology department and Dr. Neil Towers of the botany department in a fascinating research project to develop a new method of treating cancerous tumors.

The research combines the expertise of each scientist to produce a highly specific drug that will destroy cancer cells. When developed, it will be a significant addition to chemotherapy agents now used to treat cancer, most of which aren't specific and destroy a variety of healthy cells as well as cancerous ones, causing unfortunate side effects.

Dr. Levy is an expert at creating monoclonal antibodies that are specific to certain tumors. They circulate in the blood system and attach themselves to particular cancer cells, for example, lung cancer cells.

Dr. Dolphin's contribution to the project is his knowledge of a family of substances named porphyrins, complex molecules used, for example, by hemoglobin to transport oxygen from the lungs to body tissues.

Dr. Towers is an expert in photobiology, the study of naturally-occurring substances whose electrons become excited when exposed to light. Normally innocuous, this family of

chemicals destroys cells when stimulated by light. Some of the porphyrin chemicals studied by Dr. Dolphin are photo-active.

The lethal "magic bullet" the three researchers are pursuing are chemicals that combine a monoclonal antibody, and a porphyrin that will act as a photosensitive agent. The compounds would attach themselves to specific tumor cells and the patient would then be exposed to infra-red light which can penetrate the human body. The activated atoms, stimulated by exposure to light, would destroy the specific cancerous cells, leaving healthy cells unharmed.

Dr. Levy is the principal investigator of the \$274,200, three-year project.

Dean Robert Miller has received a

second renewal, uncommon for NSERC strategic grants, to continue work in the microbiology department on cloning enzymes that convert cellulose found in straw and wood waste to the sugar glucose. The team of researchers have cloned four enzymes so far.

Using conventional industrial fermentation techniques, the glucose can be converted to alcohol and blended with gasoline for use as a fuel or used as a feedstock for the petrochemical industry.

NSERC is interested in the project because of the hope that biotechnology will help convert waste products from the forest and agricultural industries into a basic raw material for the petrochemical industry. The renewal is for approximately \$200,000.

## Chuck Rooney named to new position

Chuck Rooney, a long-time member of UBC's support staff, has been named to the new position of director of plant operations in the Department of Physical Plant.

In his new position, Mr. Rooney will

have overall responsibility for the operations and maintenance of the University's buildings, utilities, roads and grounds.

The appointment, which was effective Oct. 24, was announced by Bruce Gellatly, UBC's vice-president, administration and finance, and Physical Plant director Neville Smith, who is currently on special assignment to develop a program and schedule for major repairs and renovations as well as a preventive maintenance program.

Reporting to Mr. Rooney in his new position will be the heads of three Physical Plant divisions—Ed Trewin, superintendent of custodial services; Reg Service, who has been named associate director, trades and utilities; and Bob Bray, who is now associate director, administration and scheduling, which includes on-going supervision of campus telephone services.

Another long-time member of Physical Plant, Dennis Haller, has been appointed director of plant design and construction and will continue to report to Mr. Gellatly. Construction manager Bob Higgins will continue to report to Mr. Haller.

## Unique reference list available

UBC's International House has compiled a computerized reference list of almost 700 ethnic, multicultural, religious and other organizations in B.C.

Members of the campus and off-campus community are invited to call for information, although copies of the list cannot be reproduced and distributed.

International House is also interested in adding to the list and would appreciate hearing from anyone who has information on organizations of this nature.

For details, call 228-5021 or 228-5022.

# UBC CALENDAR

### Calendar Deadlines

The next issue of UBC Reports, published on Dec. 5, will be the last issue of the paper for 1985. The Calendar section will cover events in the period Dec. 8 to Jan. 12. Notices for the Dec. 5 issue must be submitted on proper Calendar forms to the Community Relations Office, Room 207, Old Administration Building, 6328 Memorial Road no later than 4:30 p.m. on Thursday, Nov. 28. For more information, call 228-3131.

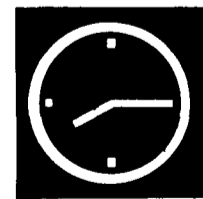
### THE VANCOUVER INSTITUTE.

#### Saturday, Nov. 23

Canada's Economic Performance, 1955 to 1990. Prof. John Helliwell, Economics, UBC.

#### Saturday, Nov. 30

The Space Between the Stars. Nobel Laureate Gerhard Herzberg, Herzberg Institute of Astro-physics, National Research Council of Canada.



Lecture Hall 2, Woodward Instructional Resources Centre. 8:15 p.m. Free admission.

### MONDAY, NOV. 25

#### Cancer Research Seminar.

National Breast Screen Study. Ms. Marg Fryer, Coordinator, Breast Screening Centre, B.C. Cancer Research Centre. Lecture Theatre, B.C. Cancer Research Centre, 601 W. 10th Ave. 12 noon.

### Reading.

Reading by the internationally acclaimed Canadian novelist Robertson Davies, author of more than thnoon.

### Reading.

Reading by the internationally acclaimed Canadian novelist Robertson Davies, author of more than thirty books, including the Deptford trilogy and the just published What's Bred in the Bone and The Papers of Samuel Marchbanks. Room A106, Buchanan Building. 12:30 p.m.

### Plant Science Seminar.

Bacteriocin Receptor in Erwinia Carotovora Subspeciehbanks. Room Atroseptica. Donna Smith, Plant Science, UBC. Room

### Plant Science Seminar.

Bacteriocin Receptor in Erwinia Carotovora Subspecies Atroseptica. Donna Smith, Plant Science, UBC. Room 342, MacMillan Building. 12:30 p.m.

### Mechanical Engineering Seminar.

Current Research and Future Prospects in the Center for Metallurgical Process Engineering. Dr. K. Brimacombe, Metallurgy, UBC. Room 1202, CEME Building. 3:30 p.m.

### Applied Mathematics,

Metallurgical Process Engineering. Dr. K. Brimacombe, Metallurgy, UBC. Room 1202, CEME Building. 3:30 p.m.

### Applied Mathematics Seminar.

On Invariance Properties of the Wave Equation. Prof. George Bluman, Mathematics, UBC. Room 229, Mathematics Building. 3:40 p.m.

### Biochemical Discussion Group.

Surface Activation of Blood Coagulation. Dr. John Griffin, Scripps Clinic & Research Foundation. IRC 4. 4 p.m.

### Psychology Colloquium.

Polygraphy and Biofeedback. Prof. John Furedy, Psychology, University of Toronto. Room 2510, Kenny Psychology Building. 4 p.m.

### TUESDAY, NOV. 26 Botany Seminar.

Enigmatic Double Stranded RNAs in Phaseolus vulgaris cv. Black Turtle Soup. Dick Hamilton, Research Branch, Agriculture Canada. Room 3219, Biological Science Building. 12:30 p.m.

### Political Science Lecture.

Tito's Flawed Legacy: Yugoslav Communism Reexamined. Nora Beloff, British author and journalist. Room B214, Buchanan Building. 12:30 p.m.

### Chemistry Seminar.

Reactions of Edge Double-Bridged Hydrido/Acyl and Hydrido/Amidyl Trimetal Cluster Complexes of Ruthenium and Osmium. Prof. Herbert D. Daesz, University of California, Los Angeles. Room 250, Chemistry Building. 1 p.m.

### Electrical Engineering Seminar.

Modern Methods of Software Development—Application of the IEEE Standards on Software Quality Assurance. Dr. Doug Dean, Systems Group, Linitek Technologies Corporation. Room 402, McLeod Building. 1:30 p.m.

### The Cy and Emerald Keyes Memorial Lecture.

Simulation of Operations of Size Reduction: An Example of Bringing Modern Technology into the Mineral Processing Industry. Prof. Leonard G. Austin, Fuels and Mineral Engineering, Pennsylvania State University. Room 317, Frank Forward Building. 1:30 p.m.

### Chemical Engineering Seminar.

A Study of Hydrodynamics of High Pressure Fluidized Beds. John Sun, M.A.Sc student, Chemical Engineering, Room 206, Chemical Engineering Building. 1:30 p.m.

### Oceanography Seminar.

Overview of Project MOIST: Meteorological and Oceanographic Influences on Sockeye Tracks. Prof. L.A. Mysak, Oceanography and Mathematics, UBC. Room 1465 West Wing, Biological Sciences Building. 3:30 p.m.

### Statistics Workshop.

Statistical Topics in the Forest Industry. Dr. Jean Cook, Forintek Canada Ltd. Room MA225, Mathematics Building. 3:30 p.m.

### Economics Applied Workshop.

Reflexive Forecasting of One-Off Events. Roger Bowden, University of Western Australia and UBC. Room 351, Brock Hall. 4 p.m.

Continued on Page 4

Continued from Page 3

## WEDNESDAY, NOV. 27 Pharmacology & Therapeutics Seminar.

Molecular Forms of Acetylcholinesterase in Brain. Dr. S.-C. Sung, Neurological Sciences, Faculty of Medicine, UBC. Room 317, Basic Medical Sciences Building, Block C. 12 noon.

## Noon-Hour Concert.

Vancouver Bassoon Quartet. Music of Prokofieff. Recital Hall, Music Building. 12:30 p.m.

## Faculty Association/CCE Seminar for Faculty.

Your UBC Benefits Package—An Update. Maureen Simons, Manager, UBC Personnel Services. Intended for UBC faculty. Free. For further information, call 222-5270. Room 60, School of Family and Nutritional Sciences (Home Economics). 12:30—1:20 p.m.

## Geophysics Seminar.

Geophysics and the Study of Ancient Town Planning. Dr. Hector Williams, Classics, UBC. Room 260, Geophysics & Astronomy Building. 4 p.m.

## Animal Resource Ecology Seminar.

The Alternative Dynamics of Natural Predator-Prey Systems. Room 2249, Biological Science Building. 4:30 p.m.

## Canadian Assoc. for Information Science.

Electronic Meetings—An Update. C.A. Birks, B.C. Telephone Co. Conference Room, B.C. Research, 3650 Westbrook Mall, South Campus. 7:30 p.m.

## THURSDAY, NOV. 28 Medical (Gastroenterology) Grand Rounds.

Traveller's Diarrhea and Vaccine Development. Dr. Edgar C. Boedeker, Head, Department of Gastroenterology, Walter Reed Army Medical Center, Washington, D.C. Ground Floor Lecture Hall, Acute Care Unit, UBC Health Sciences Centre Hospital. 12 noon.

## University Singers.

James Fankhauser, director. Music of Bruckner, Liszt, Monteverdi. Recital Hall, Music Building. 12:30 p.m.

## Occupational Health & Safety Seminar.

Oh My Aching Back. Dr. K.J. Postma, Coordinator and Director of Back Education and Evaluation Program, Workers' Compensation Board. IRC 3. 12:30 p.m.

## Reproductive Endocrinology and Infertility Seminar.

GnRH Action in the Ovary. Dr. Peter C.K. Leung, Obstetrics and Gynaecology, UBC. Room 2141, Grace Hospital. 1:30 p.m.

## Statistics Environmentrics Workshop.

Possible Use of the Ecologically-Based Forest Management Simulation Model FORCYTE in Acid Rain Research. Prof. J.P. Kimmins, Forestry, UBC. Room MA225, Mathematics Building. 3:30 p.m.

## Geography Lecture.

Environmental Problems in Siberia. John Massey Stuart, author and journalist, London. Room 201, Geography Building. 3:30 p.m.

## Distinguished Lecturer Series.

Austenite Recrystallization and Carbonitride Precipitation During the Controlled Rolling of Steel. Prof. J.J. Jonas, McGill University. Sponsored by the Centre for Metallurgical Process Engineering. Room 317, Frank Forward (Metallurgy) Building. 3:30 p.m.

## Physics Colloquium.

Comets, Gamma-Ray Bursts and the Extinction of the Dinosaurs. Dr. Scott Tremaine, Canadian Institute for Theoretical Physics. Room 201, Hennings Building. 4 p.m.

## Economics Theory Workshop.

Theoretical Determinants of Risk Affinity. Brian Pratt, SFU and UBC. Room 351, Brock Hall. 4 p.m.

## Architecture Lecture Series.

Current Attitudes Toward History in Post-Modern Architecture. Edward Jones, architect. Lecture Hall, Asian Centre. 7 p.m.

## UBC Collegium Musicum.

John Sawyer and Ray Nurse, co-directors. Music of the Renaissance and Baroque. Recital Hall, Music Building. 8 p.m.

## UBC Wind Symphony.

Martin Berinbaum, director. Music of Stravinsky, Wagner, Gershwin. Old Auditorium. 8 p.m.

## FRIDAY, NOV. 29 Counselling Skills.

An introductory workshop for social service professionals sponsored by the Centre for Continuing Education. Gary Ford, Ph.D., and Jane Sterk, Ph.D., both psychologists in private practice in Edmonton. \$135. For registration information, call 222-5261. Continues to Dec. 1. Reading Room, Chancellor Building, Vancouver School of Theology, UBC. 9 a.m.—4 p.m.

## Mechanical Engineering Seminar.

The Making of Paper—Mechanical Engineering Perspectives and Research. Dr. D. Jeffrey, Pulp and Paper Research Institute of Canada and auxiliary professor of Mechanical Engineering, McGill University. Room 1204, CEME Building. 11 a.m.

## UBC Collegium Musicum.

Repeat of Nov. 28 program. Recital Hall, Music Building. 12:30 p.m.

## UBC Wind Symphony.

Repeat program of Nov. 28. Old Auditorium. 12:30 p.m.

## Pharmaceutical Sciences Seminar.

Purines as Mediators of Synaptic Transmission in the Spinal Dorsal Horn. Dr. James L. Henry, Physiology and Psychiatry, McGill University. IRC 3. 12:30 p.m.

## Hispanic and Italian Studies Lecture.

The Author, the Material and the Reader in I Promessi Sposi by Alessandro Manzoni. Prof. Bernard S. Chandler, Department of Italian, University of Toronto. Room B212, Buchanan Building. 12:30 p.m.

## Medical Genetics Seminar.

DNA Binding Proteins. Dr. Siu Sing Tsang, Medical Genetics and Environmental Carcinogenesis Unit, B.C. Cancer Research Centre. Parentcraft Room, Main Floor, Grace Hospital. 1 p.m.

## Linguistics Colloquium.

Change in Tense and Aspect. Derek Nurse, Linguistics, UBC. Room D224, Buchanan Building. 3:30 p.m.

## University Singers.

Repeat of Nov. 28 program. Recital Hall, Music Building. 8 p.m.

## SATURDAY, NOV. 30 Faculty Association/CCE Seminar for Faculty.

Planning for the Retirement Years. James H. Lynch, Ph.D., retirement consultant. Intended for UBC faculty within 10 years of retirement. Free. For registration form and further information, call 222-5270. Room 30, School of Family and Nutritional Sciences (Home Economics). 9 a.m.—4 p.m.

## MONDAY, DEC. 2 Remote Sensing Seminar.

Multi-Resolution Technique for Computing Sea Ice Motion From NOAA Imagery. Mike Collins, Oceanography, UBC. Room 266, MacMillan Building. 12:30—1:30 p.m.

## Plant Science Seminar.

Aging and Senescence in Potato Seed Tubers. Loretta Mikitzel, Plant Science, UBC. Room 342, MacMillan Building. 12:30 p.m.

## Mechanical Engineering Seminar.

Pulp & Paper Developments at UBC. Prof. R. Kerekes, director, Pulp & Paper Centre. Room 1202, CEME Building. 3:30 p.m.

## Applied Mathematics Seminar.

Accuracy and Stability of Full Discretizations for Hyperbolic Problems. Dr. Rolf Jeltsch, Institute of Geometry & Practical Mathematics, Institute of Technology RWTH Aachen, West Germany. Room 229, Mathematics Building. 3:45 p.m.

## Lipid and Lipoprotein Discussion Group.

Biochemical and Genetic Approach to Study Lipid Assembly into Membranes. Dr. Dennis Voelker, University of Colorado. IRC 4. 4 p.m.

## Astronomy Seminar.

Exploding Stars From a Nova Point of View. Dr. Sumner Starrfield, Los Alamos National Laboratory. Room 260, Geophysics and Astronomy Building. 4 p.m.

## Educational Psychology and Special Education Lecture.

A Critique of Some Frequent Misconceptions of the Normalization Principle. Dr. Bengt Nirj, Uppsala University, Sweden. \$5 at the door. IRC 2. 7:30 p.m.

## TUESDAY, DEC. 3 NSERC Industrial Engineering Committee.

General information meeting about grants. Room 419, Henry Angus Building. 9 a.m.

## Botany Seminar.

Immunoology and Synthesis of Chlorophyll Proteins. Michael White, Botany, UBC. Room 3219, Biological Science Building. 12:30 p.m.

## Chemistry Seminar.

Studies in Oxidation Chemistry. Prof. Terrence J. Collins, Chemistry, California Institute of Technology, Pasadena. Room 250, Chemistry Building. 1 p.m.

## Chemical Engineering Seminar.

How to Keep Out the Cold on Long Swedish Nights (Circulating Fluidized Bed Combustion for Beginners). Clive Brereton, Ph.D. student, Chemical Engineering, UBC. Room 206, Chemical Engineering Building. 1:30 p.m.

## Oceanography Seminar.

Vertical Movements of Adult Sockeye Salmon in B.C. Coastal Waters in Relation to Temperature and Salinity: Ultrasonic Telemetry Results. Mr. Bert Terhart, Oceanography, UBC. Room 1465, Biological Science Building. 3:30 p.m.

## Metallurgical Engineering Seminar.

Cathodoluminescence Detection of Dislocations in GaAs. P. Gallagher, Metallurgical Engineering, UBC. Room 317, Frank Forward (Metallurgy) Building. 3:30 p.m.

## Economics Applied Workshop.

Expectations in Models of Production. Jasmine Ansar, City University of London and UBC. Room 351, Brock Hall. 4 p.m.

## WEDNESDAY, DEC. 4 Pharmacology & Therapeutics Seminar.

Physiology and Pharmacology of Single Channel GABA Currents in Cultured Central Neurons. Dr. D. Mathers, Physiology, UBC. Room 317, Basic Medical Sciences Building, Block C. 12 noon.

## Noon-Hour Concert.

Joel Quarrington, contrabass; Robert Silverman, piano; Gwen Thompson, violin. Music of Beethoven. Recital Hall, Music Building. 12:30 p.m.

## Science, Technology and Society Studies Roundtable.

Boundary Work: A Model of the Relation Between Knowledge and Power. Prof. Donald Fisher, Social and Educational Studies, UBC. Room D352, Buchanan Building. 3:30 p.m.

## Economics Seminar.

Explaining Foreign Investment Flow in the 19th Century. Michael Edelstein, CUNY-Queen's College. Room 351, Brock Hall. 4 p.m.

## Zoology/Animal Resource Ecology Seminar.

Exploring the Limits of Community Organization: Graded Perturbations to a Plankton Community. Dr. William E. Neill, IARE, UBC. Room 2000, Biological Science Building. 4:30 p.m.

## THURSDAY, DEC. 5 UBC Symphony Orchestra.

Timothy Vernon, conductor. Music of Rachmaninoff and Bartok. Old Auditorium. 12:30 p.m.

## Leon and Thea Koerner Memorial Lecture.

Being Alive: The Poetry of Al Purdy. Al Purdy, Canadian poet. Room A100, Buchanan Building. 12:30 p.m.

## Statistics Workshop.

Postcensal Estimation of the Population of Small Areas. Prof. Jim Zidek, Statistics, UBC. Room MA225, Mathematics Building. 3:30 p.m.

## FRIDAY, DEC. 6 Pharmaceutical Sciences Seminar.

The Effects of STZ-Induced Diabetes and Hormonal Manipulation on the Male Hepatic Moderate Affinity Estrogen Binding Protein of the Wistar Rat. D'Arcy Smith, Pharmaceutical Sciences, UBC. IRC 3. 12:30 p.m.

## Medical Genetics Seminar.

Endogenous Retroviruses in Humans. Dr. Dixie Mager, Laboratory of Genetics, University of Wisconsin. Parentcraft Room, Main Floor, Grace Hospital. 1 p.m.

## Economics Applied Workshop.

The Cut-Off Grade and the Theory of Extraction. Jeffrey A. Krantkramer, Washington State and University of Washington. Room 351, Brock Hall. 4 p.m.

## Adventures in Consciousness.

A weekend workshop on self-hypnosis. Sponsored by the Centre for Continuing Education. Dr. Lee Pulos, clinical psychologist. Continues all day on Saturday and Sunday, Dec. 7 and 8. For registration information, call 222-5261 (registration fee is \$130). Room 2N, A & B, Psychiatric Unit, Health Sciences Centre Hospital, UBC. 7:30—10:30 p.m.

## UBC Symphony Orchestra.

Repeat of Dec. 5 program. Old Auditorium. 8 p.m.

## Notices . . .

### Badminton Club

Faculty and Staff Badminton Club meets Tuesdays 8:30—10:30 p.m. and Fridays 6:30—9:30 p.m. in Gym B of the Robert Osborne Sports Centre. New members welcome.

### Fine Arts Gallery

An exhibition of bowls by Charmian Johnson is on display until Dec. 21. The gallery is located in the basement of the Main Library. Hours are 10 a.m. to 5 p.m. Tuesday through Friday and 12 noon to 5 p.m. on Saturdays. Closed Sundays and Mondays.

### Gordon Shrum Memorial Scholarship

One or more scholarships to a total value of \$1,300 have been made available by family and friends in memory of Prof. Gordon M. Shrum. This scholarship will be awarded on the recommendation of the physics department to a student entering the final year of the physics honors program or engineering physics. Contributions to the scholarship can be made through the UBC Awards Office, 228-5111.

### Volunteer Connections

Volunteer Connections is open to serve all students and staff interested in doing volunteer work. Come to Room 200, Brock Hall or call 228-3811.

### Badminton Club

Faculty and Staff Badminton Club meets Tuesdays 8:30—10:30 p.m. and Fridays 6:30—9:30 p.m. in Gym B of the Robert Osborne Sports Centre. New members Welcome.

### Faculty Volleyball

Interested faculty/staff volleyball players are invited to join a current group of players who play every Monday and Wednesday from 12:30—1:30 p.m. in Gym B of the Osborne Centre. Drop in or call Ken Coutts at 228-4479 for further details.

### Museum Christmas Sale

The Museum of Anthropology is holding a Christmas sale of items from around the world Nov. 19 to 24 from 11 a.m. to 4 p.m. For more information, call 228-5087.

FIRST CLASS MAIL

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