

UBC



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# Math professor wins Steacie fellowship

By GAVIN WILSON

UBC Mathematics Professor Edwin Perkins is one of four outstanding scientists to win a 1992 E.W.R.

Steacie Memorial Fellowship from the Natural Sciences and Engineering Research Council.

The Steacies are Canada's most prestigious awards for young researchers in science and engineering.

Perkins, 38, is one of Canada's top mathematicians. He is considered the most remarkable probabilist of his generation and one of the leading mathematicians in the field of probability in the world today.

Probability is the mathematical study of random phenomena. It is a central tool in mathematical physics, theoretical computer science and pure mathematics, and provides a theoretical basis for the field of statistics.

UBC professors have won 11 Steacies since the award's inception in 1964, more than any other Canadian university except the University of Toronto, which has won 13.

The award of salary plus benefits offers winners the opportunity to focus on research full-time, free from teaching and administrative duties for up to two years. A Steacie award also assists fellows in securing additional research funding.



Perkins

Perkins is internationally credited with opening up the new field of superprocesses or measured-value diffusions, with ideas and techniques that have been characterized as precise, delicate, deeply insightful and extremely powerful.

His work describes the behavior of these processes, which originate in population genetics and describe the

distribution of ideal individuals (or gene types) undergoing random reproduction (or mutations) and migration.

One of the central ideas in his work is the mathematical formulation of the main theme on evolutionary behavior in Stephen Jay Gould's book on the Burgess Shale, *It's a Wonderful Life*. Perkins is a frequent collaborator

with other major researchers in the field and his work is the object of study at major probability centres world-wide. He credits his colleague and fellow probabilist in the UBC math department, John Walsh, with being a major influence on his work.

Perkins was born in Toronto and obtained his B.Sc. at the University of Toronto in 1975, going to the Univer-

sity of Illinois at Urbana-Champaign to earn his Ph.D. in 1979.

He was a visiting lecturer and NSERC university research fellow at UBC before taking a post here as an assistant professor in 1982. He became a full professor in 1989.

Perkins was an associate professor at the Universite Louis Pasteur in Strasbourg, France, in 1984 and a SERC research fellow at Cambridge University in 1986-87.

Steacie Fellowship funding will enable him to pursue collaborative work at Cambridge, Carleton and Cornell universities and in Marseille.

The other fellows for 1992 are Gilles Brassard, a computer scientist at the University of Montreal, Norman Dovichi, a chemist at the University of Alberta, and David Layzell, a biologist at Queen's University. The awards were presented at a ceremony Jan. 14 in Ottawa.

The winners were selected from submissions made by universities across Canada. Final selection is made by NSERC in consultation with the Canadian and international research community.

The fellowships are awarded in memory of Edgar William Richard Steacie, former president of the National Research Council.

NSERC is Canada's largest research granting agency, providing more than \$445 million this year to support advanced research, train new scientists and engineers and encourage collaboration between the academic and industrial sectors.



Photo by Media Services

Kate Tully, left, a fourth-year English honors student, receives the Sherwood Lett Memorial Scholarship from Evelyn Lett, wife of the former chancellor, at a luncheon hosted by UBC President David Strangway. Four other undergraduate students were also presented with major scholarships. See story, page 2.

## New research centre studies entrepreneurship

By ABE HEFTER

Why do some business ventures succeed and others fail?

It's one of the questions that will be addressed by the newly created UBC Entrepreneurship and Venture Capital Research Centre, which was given

approval earlier this month by the UBC Board of Governors.

"Social science research provides us with few insights into the essence of entrepreneurship, the environments that foster the most successful entrepreneurial activities, and what role government should play," said Commerce and Business Administration Professor Raphael Amit, the centre's director.

Venture capital firms — companies that provide expertise and funding for new business operations — base their investment and deal-pricing decisions largely on rules of thumb with little or no theoretical justification, he explained.

"These firms are in need of a body of knowledge on which to base their decisions," he said.

Amit said that the unprecedented growth in the formation of new ventures over the past decade has been the source of the vast majority of newly created jobs in this country. Unfortunately, he added, the failure rate of new businesses is high.

What has compounded the prob-

lem is the hesitation of venture capital firms to make seed-stage investments in new technology and service-oriented enterprises.

"The lack of start-up financing has reached a critical stage in B.C.," said Amit. "Job opportunities will be lost if this province fails to develop a wide range of knowledge-based companies."

Amit said that the need to move quickly in this area will require the swift dissemination of knowledge on the part of the centre, which will be housed in the Faculty of Commerce and Business Administration.

Research done by UBC faculty members, in collaboration with universities around the world, will be made available through undergraduate and MBA entrepreneurship courses, continuing education and training, graduate study programs, workshops, seminars and symposia.

Amit said the strong policy focus of the centre should also be of great assistance to government policy makers as they grapple with entrepreneurial

See CLUB on Page 2

## Governors appointed to Order of Canada

By CONNIE FILLETTI

Two members of UBC's Board of Governors were among the appointments to the Order of Canada made by Governor-General Ramon Hnatyshyn on Jan. 6.

Arthur Hara, chairman of Mitsubishi Canada Ltd., and Asa Johal, founder of Terminal Sawmills, were both named Officers of the Order of Canada.

Hara joined UBC's Board of Governors in 1988. He has had a distinguished career in business and maintained a lifelong interest in education and cultural affairs. Past chair of the Vancouver Board of Trade, Hara is president of the Asia Pacific Foundation of Canada, and was a director of the Council on Canadian Unity.

He was presented with an honorary degree at UBC's spring Congregation ceremonies in 1990.

Johal, a prominent member of the Indo-Canadian community, has devoted much of his life to the development of ethnic culture and education. President of Terminal Sawmills and Terminal Planner Mills, as well as president of the International Punjab Society of B.C., he has made numerous contributions to UBC, providing fellowships in Asian Studies and Forestry, and a graduate teaching assistantship in Punjabi and Sikh Studies. He is a member of numerous associations, including the Council of Forest Industries in B.C. and the North American Lumber Wholesalers Association.

UBC music graduate and one of Canada's leading opera singers, Judith Forst, was also appointed an Officer of the Order of Canada.

Forst has performed with many opera companies and symphonies in North America and abroad, including the New York Metropolitan Opera, L'Orchestre de la Radio France, and the San Francisco Opera. She was named Canadian Woman of the Year in 1978. Forst received an honorary degree at UBC's recent fall Congregation ceremonies.

### Inside

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**ART ON CAMPUS: Art galleries at UBC are featured in this issue's Around & About. Page 3**

**BLAST OFF: UBC Experiments head into outer space on the space shuttle Discovery. Page 8**

# Program puts legal library at fingertips

By CHARLES KER

At home, in the office or in court. Lawyers may soon have instant access to every case in Canada through a computer program being developed at UBC.

The FLEXICON (Fast Legal Expert Information Consultant) receives cases on hard disc from the courts, instantly produces a summary of each and highlights relevant areas of law. All this can then be copied onto compact disc.

As a single disc holds up to 400,000 pages of case material, lawyers could use a laptop computer to potentially call up any Canadian case anywhere, anytime.

"The program is like the electric car - ahead of its time," said computer scientist Daphne Gelbart. "It allows lawyers to quickly find and retrieve relevant cases easily, cheaply and intelligently."

Gelbart and UBC Law Professor J.C. Smith lead a team of seven computer programmers and legal experts on campus at the UBC-IBM Law and Computer Centre. They are currently increasing the program's case capacity and processing speed with the aim of marketing it within two years.

Smith said that with so much legal information already on hand and so much more generated daily, it just

isn't practical for lawyers to hunt through texts themselves. However, he added the legal profession is still stuck in a paper world.

Law firms have traditionally subscribed to a number of services that provide printed volumes of the latest cases and judgments. And while there are on-line computer systems which can be used by modem on a pay-per-minute basis, their searches are slow and imprecise.

Smith suggests that rather than receiving monthly published reports of cases, firms could update their own CD library every two weeks through a single service at minimal cost. He added that all Canadian cases cited in Canada since 1900 would probably fit onto about 10 compact discs.

"We look at the lawyer and this program as an integrated system," said Smith. "The database can be seen as an extension of a lawyer's own memory of cases."

As new cases arrive from the courts and are entered into the FLEXICON



Photo by Media Services  
Daphne Gelbart uses FLEXICON system on laptop.

database, the program automatically breaks each case down into four areas: legal concepts, facts, statutes and other cases cited.

When searching for cases relevant to a trial, lawyers simply type in terms associated with each item group and

come up with a "case profile." Using a mouse and menu, a search can be further narrowed using the program's thesaurus and synonym dictionaries.

Next, the program comes up with a "search profile" ranking pertinent cases which can then be called up individually on the screen in full, or summarized in a "flexnote".

One time-consuming element in creating the system is that older published cases still have to be manually scanned from print into electronic form before they can be entered into the database.

While FLEXICON is a generic program which can be adapted to any kind of law, the centre has also developed a series of "expert" computer systems focusing on common areas

of litigation such as whiplash, nervous shock, malicious prosecution, impaired driving and loss of future earnings.

It was Smith's in-depth analysis of legal structures which formed the basis for the centre's research in 1986. He devised a database which dissects

nebulous rules of law so they can then be directly related to the cold, hard facts of a case.

"By breaking it down into a hundred little rules, you can turn a fuzzy legal rule into a factual one," said Smith. "That's what makes this form of analysis so effective."

On the basis of factual information supplied by the user, these expert systems determine possible causes of action, assess the likelihood of success and display relevant cases that support its predictions.

Smith and his colleagues are already at work upgrading the FLEXICON program to have it give advice much like the individual expert systems.

The centre, located behind Brock Hall, is an outgrowth of a research project into artificial intelligence and the law started six years ago with a \$2 million grant from IBM.

Since 1989, the law and computer centre has been funded by the Social Sciences and Humanities Research Council, the Law Foundation of B.C. and the B.C. Science Council.

Along with its research component, the centre offers a course in legal reasoning and artificial intelligence to UBC law students. It also serves as the focal point for graduate work in artificial intelligence and law.

## Club assists students with new businesses

Continued from Page 1  
and venture capital issues.

A range of other initiatives has also been designed to complement the work of the centre, including the UBC Entrepreneurship Club.

Fourth-year marketing student Caroline Loui-Ying, club president, said the club was established to provide students with assistance in starting a new business, networking opportunities and a forum to exchange new venture ideas.

"We hope that the Vancouver business community will look to our association as a potential resource," she said.

Commerce and Business Administration Dean Michael Goldberg said the centre will play a major role in the faculty's continuing efforts to reach out to B.C. and Canadian business communities.

"This centre offers venture capital

researchers and practitioners the opportunity to bring entrepreneurial issues to the forefront — to unite theory with practice," said Goldberg.

"The issues that relate to the formation and growth of new enterprises in both independent and corporate settings will be rigorously researched and discussed."

The centre's initial seminar took place January 20-22. The workshop led by Amit, Professor Kenneth MacCrimmon and Associate Dean Peter Frost, addressed a wide range of issues that relate to the development and management of new business ventures.



Amit

### Calling all Authors!

Are you the author of a book published between April 1991 and December 1991?

If so, we would like to hear from you!

On March 10, 1992

President David Strangway and University Librarian

Ruth Patrick

are hosting the

2nd Annual Reception for UBC Authors.

If you're a UBC author, please contact Isabel Pitfield, Main Library (822-8208).

## Seniors' dental clinic to be built at UBC

By CONNIE FILLETTI

The University of British Columbia has entered into an agreement with the federal government to establish a geriatric dental clinic serving the veterans and senior citizens of B.C.

Veterans Affairs Canada will contribute \$650,000 — approximately one-half the capital cost — to the new facility, which will be constructed as an addition to the UBC Dental Clinic located on campus. The university will match the federal government's grant.

The clinic will be a multi-purpose research, teaching and dental care facility. Its mandate includes providing consultative services, regarding veterans' needs, to dentists in the community, and dental care to the veterans and senior citizens of the province.

"The facility will serve as a major dental referral resource for veterans, as well as other senior populations in the community and province, with an emphasis on oral cancer, facial pain, joint disorders and dental management," said Dr. Paul Robertson, dean of UBC's Faculty of Dentistry.

He added that the facility will also provide a spectrum of educational programs in areas related to geriatric dentistry, and will be a productive environment for clinical and basic research.

Dental services currently provided by the Veterans Affairs Dental Clinic at the Shaughnessy site of University Hospital and by the UBC Dental Clinic will be combined.

Veterans admitted to the Shaughnessy site of University Hospital will continue to receive in-patient dental care after con-



Robertson

struction of the geriatric dental clinic is complete. The new facility will serve veterans and older adult out-patients from all areas of the province.

"We are pleased to be part of this project, especially because it will result in improved dental care for our veterans," said Gerald Merrithew, minister of Veterans Affairs Canada.

He added that veterans, in addition to being able to use their dentist of choice in their own communities, will also have priority access to this specialized facility.

UBC President David Strangway praised the joint venture, calling it a true commitment to the care and quality of life of Canada's aging population.

Strangway, Merrithew and Robertson will sign the capital contribution agreement Jan. 24.

The new clinic is expected to open in January, 1993.

## Five undergrads win scholarships

By GAVIN WILSON

Five UBC students have been honored with major undergraduate scholarships.

UBC President David Strangway presented the scholarships, valued up to \$5,000, at a luncheon at the Faculty Club earlier this month.

The winning students were: Jeevan Deol and Kate Tully, both in the Faculty of Arts; Todd Sankey and Clark Wilson, both in the Faculty of Applied Science; and Lan Yip, Faculty of Law.

Deol, a third-year arts student, is the winner of the \$5,000 C.K. Choi Scholarship. He maintains top marks in courses as diverse as medieval Hindi, English and calculus and was also cited for his considerable contribu-

tions to furthering mutual understanding between Sikhs and other Canadians.

Todd Sankey, fourth-year engineering physics, is the winner of the \$5,000 John H. Mitchell Memorial Scholarship. Sankey is active in sports such as ball hockey and volleyball and trains as a triathlete while maintaining a first-class average in his studies. He is also active in his church.

Kate Tully, fourth-year English honors, is the winner of the \$5,000 Sherwood Lett Memorial Scholarship. She has acted as a volunteer in the African country of Liberia and has also volunteered with autistic children, the Western Wilderness Committee, Kidney Foundation and Man

in Motion tour. As well, she is a competitive rower.

Clark Wilson, architecture, is the winner of the \$3,500 Amy E. Sauder Scholarship and the \$1,500 Jean Craig Smith Scholarship. He achieved the highest academic average in his class last year. Active in sports and drama, he does volunteer work to fulfill the recreational needs of disabled children.

Lan Yip, law, is the winner of the \$2,250 Harry Logan Memorial Scholarship. An accomplished pianist and a published poet, Yip is also active in sports such as figure skating and hockey. She volunteers with the Law Student Legal Advice Program and the legal clinic at the Chinese Cultural Centre.

# Teachers meet special needs of children

By CHARLES KER

Doug Lang has been an elementary school teacher for four years before he met Kaare Dehard, a Grade 5 student blind from birth. That was 10 years ago.

Today, Lang specializes in helping students with little or no sight, while his former student now runs a computer shop a few miles from his old school in Mission.

It was his experience with Dehard that led Lang to take a correspondence course in braille and eventually enrol in UBC's Faculty of Education diploma program to teach children with visual impairments.

Lang is one of 60 teachers in British Columbia who travel from school to school catering to the special needs of students with serious vision problems. In many cases, their ability to talk and move is further restricted by physical and mental illnesses such as cerebral palsy or Down's syndrome.

Now in its 16th year, the diploma program is the only full-time academic offering of its kind in Canada. Since its introduction, the program has boasted a 100 per cent employment rate with close to 150 graduates working across Canada, as well as in India and Australia.

The dozen certified teachers who enrol each year take 15 units of coursework combined with 15 weeks of practical classroom experience and graduate as "itinerant specialist teachers." They help students from preschool to Grade 12 adapt to blindness by teaching braille, computer skills

and how to walk with a cane. They also help teachers adjust in the classroom, liaise with parents at home and supply students with technological aids and reading materials with large print.

Lang, who works with 10 students in seven different schools in Surrey, figures that he drives close to 800 kilometres a month.

"The whole goal of the job is to do yourself out of a job because there are always more kids coming," he said. "Success is measured by getting them to the point where they can do things for themselves."

The increased demand for special needs teachers may soon result in UBC's diploma programs for deaf and hard of hearing students and those with visual impairments being upgraded to Master's degrees.

Sally Rogow, director of the diploma program for the visually impaired and professor in the Department of Educational Psychology and Special Education, said there are 800 children in B.C. who are either partially or totally blind. She added that close to half of these children also have additional disabilities such as cerebral palsy or Down's syndrome.

According to Dr. James Jan, professor of Pediatric Neurology at the B.C. Children's Hospital, the number of visually impaired children in the province has doubled in the last decade. Dr. Jan said for every 10,000 births, the number of babies born with sight problems has risen from

four to eight due to improved medical technology.

Says Jan: "Premature babies and critically ill children with extensive brain damage who would have died 10 years ago are being saved today."

There is a similar need for teachers specialized in the area of hearing loss.

Assistant Professor Janet Jamieson said there are currently approximately 40 vacancies in the B.C. school system for teachers of students who are deaf and hard of hearing. Canada-wide, there are about 10,000 children between birth and 21 who are receiving special education services because of hearing loss.

UBC's specialized program dealing with education of deaf students graduates between 12 and 15 teachers each year. It is one of four such university programs in the country.



Professor Sally Rogow has worked with 12-year-old Irene Chu for more than 10 years. Despite cerebral palsy and an acute vision problem, Irene has learned to read and communicate using Morse code.

Jamieson expects enrolments will increase in the coming years as school districts start offering incen-

tives to teachers who return to school for post-graduate work in specialized areas.

## Networks of Centres of Excellence open doors

By CONNIE FILLETTI

UBC recognized the contribution of the provincial government to the Networks of Centres of Excellence (NCE) Program at the university's new NCE facilities on Jan. 20.

The Networks of Centres of Ex-

cellence is a four-year, \$240-million program, announced by the federal Ministry of State for Science and Technology in October, 1989, to promote Canadian fundamental and long-term applied research.

The government of British Columbia has committed \$20 million over four years from the Science and Technology Fund to provide infrastructure support to the NCEs based in the province.

UBC, the national leader in three of the centres, has received \$34 million in federal funding and \$14.4 million in provincial grants.

In total, 55 UBC researchers are involved in 12 of the 15 NCEs, more than any other Canadian university participating in the program.

The centres headquartered in UBC's facilities are: the Canadian Bacterial Diseases Network; the Canadian Genetic Diseases Network; and the Protein Engineering Network. Scientists from these and three other networks occupy laboratory space in the building.

Selection of the Networks of Centres of Excellence from more than 150 applicants was made by an international panel comprising prominent members of the scientific and medical communities.

"UBC is very appreciative of the support from the provincial government," said Robert Miller, vice-president of research. "They are making it possible to implement the programs for which we successfully competed. The high tech developments are good for British Columbia."

Tom Perry, Minister of Advanced Education, Training and Technology, officiated at the Jan. 20th ceremonies.

## New academic chairs created

The UBC Board of Governors approved the creation of 14 new academic chairs at its January meeting.

The chairs are Landscape and Liveable Environment; Food Protection; Food Marketing; Alcan Chair in Materials Process Engineering; Elizabeth Kenny McCann Chair or Professorship in Nursing; Marianne Koerner Chair in Brain Diseases; Alcan Chair in Neurosciences; Cardiology; C.N. Woodward Chair in Surgery; Chair in Audiology and Speech Science; Mark Park/Arthritis Society Chair in Rheumatology; Harold Robinson/Arthritis Society Chair in Arthritic Diseases; Fisheries Oceanography; and Gobind Khorana Chair in Biological Chemistry.

In other business the board approved the establishment of a Centre for Applied Ethics within the Faculty of Graduate Studies.

The board also designated the period of October 11-17, 1992, UBC Health Sciences Week.

## Around & About

### Campus art treasures

By RON BURKE

Well, it's January again, which means people are filled with all kinds of good intentions. Many people annually resolve to take in more of the local arts; at UBC, there are excellent opportunities all around us.

Traditional favorites include Museum of Anthropology exhibits, Frederic Wood Theatre productions and concerts at the School of Music's Recital Hall. But those are by no means the only venues worthy of a visit.

#### Video Parodies at Fine Arts Gallery

The current exhibition (to Feb. 8) at the Fine Arts Gallery, located in the basement of Main Library, is *Monodramas and Loops*, by Vancouver artist Stan Douglas. The *Monodramas* are short, commercial length parodies of the conventions of television. These will be shown on video monitors in the gallery, as well as being broadcast on BCTV through to Feb. 5 during late night hours. Admission to the gallery is free.

Curator Scott Watson says the Douglas exhibition is a good example of what the gallery is all about.

"Our mandate is to exhibit contemporary art with a strong focus on Canada and art of our region," he says.

Watson suggests that because it is a university gallery, there is an expectation it will take risks and emphasize intellectually challenging work.

"We are specifically mandated not to follow fashion," he says, "but at the same time we attempt to make our projects accessible, so that people can respond to them."

Watson looks forward to the gallery's scheduled late-'93 move to a new building, which is currently in the design stage. Construction of the new gallery will be funded by a generous contribution from the Morris and Helen Belkin Foundation, with matching funds from the provincial government.

#### Artful Dining at Faculty Club

You might be surprised to learn that the newly renovated Faculty Club has a very healthy art collection, composed mostly of works purchased in the 1950s and '60s. Works by West Coast artists Jack Shadbolt and Toni Onley are currently displayed throughout the club.

In addition to his duties at the Fine Arts Gallery, Watson chairs the Faculty Club's fine arts committee, which is faced with the challenge of what to do with all of the club's art.

The committee will make a recommendation to the club's board of directors later this year on which direction to take with the collection. Options include expanding the collection now, staying with the existing pieces, or selling off some of the inventory to generate funds for future art purchases.

Admission to the club is by membership only.

#### Student Art in AMS Gallery

During the academic year, the Alma Mater Society's Art Gallery on the main floor of the Student Union Building features one-to-two week exhibitions by (mostly UBC) students. The current line-up of student works makes way for an exhibition of pieces from the AMS collection, Feb. 16-29. The collection features contemporary Canadian works and is

overseen by a sub-committee of the Student Administrative Commission.

"The shows are not just exhibitions of paintings," says AMS Facilities Manager Leslie Kanerva. "We get everything from pottery to ceramic tile artwork to photography."

Students submit proposals to the committee each spring for consideration, and Kanerva says virtually all proposals are accepted.

"The committee tries not to edit the proposals," she says. "The gallery is open for all kinds of submissions."

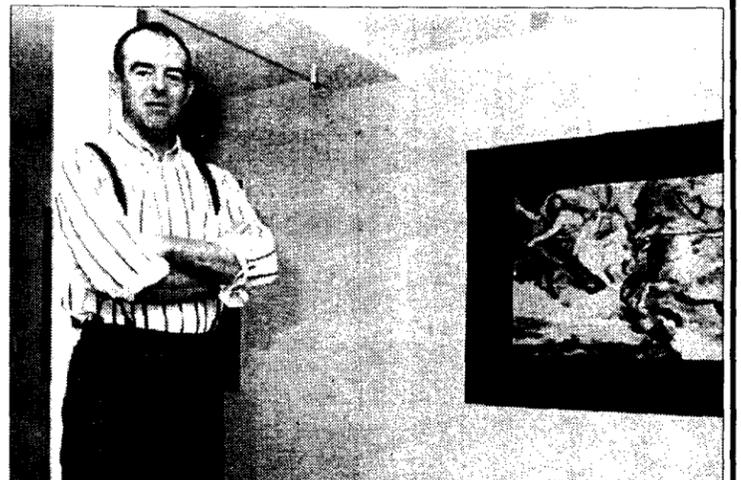
Another upcoming highlight is an exhibition of works by fourth-year Fine Arts students, Mar. 15-28. Admission to the gallery is free.

#### International Art at Asian Centre

The glass showcases in the Asian Centre's foyer currently feature brightly colored ceremonial dolls from the hill tribes of northeast Thailand. The centre also houses a multi-functional performance space used for films, conferences, exhibits and cultural performances.

For example, last November the centre hosted the Nizami festival, a day-long event featuring the music, dance, literature and food of Persia. Tentatively scheduled for March are an Indonesia Day and a kimono exhibition.

Admission to the centre is free.



Scott Watson in the UBC Fine Arts Gallery.

Photo by Media Services

January 27 –  
February 8

## MONDAY, JAN. 27

## BC Cancer Research Seminar



Schedule Dependence In Combined Modalities. Dr. Robert F. Kallman, Therapeutic Radiology, Stanford U. BC Cancer Research Centre Lecture Theatre at 12pm. Call 877-6010.

## Mechanical Engineering Seminar

Investigation Of A Powered Upper Limb Orthosis. Carolyn Anglin, MASC student. Civil/Mechanical Engineering 1202 from 3:30-4:30pm. Refreshments. Call 822-6200/4350.

## Astronomy Seminar

Galaxy Interactions And Radio Sources. Dr. T.K. Menon, Geophysics/Astronomy. Geophysics/Astronomy 260 at 4pm. Coffee at 3:45pm. Call 822-2267/6706.

## Graduate Student Society Video Night



Double bill: New York Stories/When Harry Met Sally. Large screen, admission free. Grad Centre Fireside Lounge from 6-10pm. Call 822-3203.

## TUESDAY, JAN. 28

## Linguistics Colloquium

A Unified Theory Of Object Agreement. Carol Georgopoulos, clinical associate professor, Linguistics Program, U. of Utah. Buchanan B220 at 11:30am. Call 822-4256.

## Women's Studies Centre Lecture

Women And The Legal Profession In BC. Joan Brockman, Criminology, SFU. Scarfe 1005 at 12:30pm. Call 822-9171.

## Financial Planning Seminar Series

Financial Security. Tax-Smart Decisions Now That Will Pay Off In The Future. Garry Zlotnik/Stam Livingston, Zlotnick, Lamb And Company. Sponsors: Faculty Association/Centre For Continuing Education. Angus 104 from 12:30-1:20pm. Call 222-5270.

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Please  
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## CALENDAR DEADLINES

For events in the period February 9 to February 22, notices must be submitted by UBC faculty or staff on proper Calendar forms no later than noon on Tuesday, January 28 to the Community Relations Office, Room 207, 6328 Memorial Rd., Old Administration Building. For more information call 822-3131. The next edition of UBC Reports will be published February 6. Notices exceeding 35 words may be edited. The number of items for each faculty or department will be limited to four per issue.

## Botany Tuesday Seminar Series

Agrobacterium-Mediated Transformation In Flax. Dr. Alan G. McHughen, Crop Science/Plant Ecology, U. of Saskatchewan. BioSciences 2000 from 12:30-1:30pm. Call 822-2133.

## Asian Research Seminar



Legal Norms In The Formation Of Contracts In The People's Republic Of China/Taiwan. Prof. Pitman Potter, Law. Asian Centre 604 from 12:30-2pm. Call 822-4688.

## Lectures In Modern Chemistry

Probing Protein Structure/Function With Unnatural Amino Acids. Dr. Peter G. Schultz, Chemistry, U. of California, Berkeley. Chemistry 250, South Block at 1pm. Call 822-3266.

## Philosophy/Economics Lecture

The Toxicity Of Environmentalism. Prof. George Reisman, Economics, School of Business/Management, Pepperdine U. SUB Auditorium at 2:30pm. Question period follows. Call 822-6273.

## Medical Genetics Seminar

A Cluster Of CpG Islands In 10q11.2: Implications For Cloning The Gene(s) Responsible For Multiple Endocrine Neoplasia Type 2 (MEN2). Angie Brooks-Wilson, PhD student, Medical Genetics. IRC #1 from 4:30-5:30pm. Refreshments at 4:15pm. Call 822-5312.

## Museum Of Anthropology Identification Clinic



Identification/Conservation Advice By MOA Curators/Conservators For Objects Of Any Kind. Admission free. MOA Theatre Gallery at 7:30-8:30pm. Call 822-5087.

## WEDNESDAY, JAN. 29

## Surgery Grand Rounds

Clinical And Experimental Treatment Of The Injured Spinal Cord. Dr. Charles H. Tator, professor/chair, Neurosurgery, U. of Toronto; head, Neurosurgery, Toronto Hospital. G.F. Strong Rehab. Centre Auditorium at 7am. Call 875-4136.

## Orthopaedic Grand Rounds

Complications Of Limb Salvage. Dr. Christopher P. Beauchamp. Eye Care Centre Auditorium from 7:30-8:30am. Call 875-4646.

## Concert Series



Martin Berinbaum, trumpet; Barbara Hallam-Price, organ. Music Recital Hall at 12:30pm. Admission \$2. Call 822-5574.

## Distinguished Medical Research Lecture



Blood Coagulation And Hemophilia. Dr. Ross T.A. MacGillivray, Biochemistry. IRC #6 from 12:30-1:30pm. Call Susan Marlin at 822-4305.

## Microbiology Seminar

Interactions Between Photosynthesis, Respiration And Nitrogen Assimilation. Dr. David H. Turpin, Botany. Wesbrook 201 from 12:30-1:30pm. Call 822-3308.

## Forestry Seminar

Old Growth Inventory And The Last Unlogged Watershed. Andy MacKinnon, Forest Sciences Branch, Ministry of Forests. MacMillan 166 from 12:30-1:30pm. Call 822-3553.

## Seminar Announcement

Technology Transfer In Japanese Society. Dr. William K. Cummings, Harvard Institute for International Development. Sponsors: The Policy Centre And Social/Educational Studies. Ponderosa Annex-H 123 from 2:30-4pm. Call 822-2593/5295.

## Geography Colloquium

Creating The Second Cold War: Geopolitics And The Soviet Threat In The 1970s. Simon Dalby, Political Science, SFU. Geography 201 at 3:30pm. Refreshments at 3:25pm. Call 822-2985/2663.

## Applied Mathematics Colloquium

The Attractor Of A Lattice Differential Equation. Dr. Erik S. Van Vleck, Mathematics/Statistics, SFU. Math 104 at 3:45pm. Call 822-4584.

## Neuroscience Retreat/Plenary Lecture



Retreat: IRC Lobby from 2-4:30pm. Lecture: Dopaminergic Regulation Of Cholinergic Neurons In The Forebrain: New Insights Provided By In Vivo Microdialysis. Dr. H.C. Fibiger, Neuroscience, Psychiatry. IRC #3 from 4:30-5:30pm. Call Dr. P. Reiner at 822-7948.

## THURSDAY, JAN. 30

## Pharmacology Seminar

Substrate Regulation Of Lipoprotein Lipase In Isolated Cardiac Myocytes. Dr. Brian Rodrigues, Pharmacology/Toxicology, Pharmaceutical Sciences. IRC #5 from 11:30am-12:30pm. Call 822-2575.

## Geological Sciences Seminar Series

Role In Groundwater Management. Elizabeth Hill, Parmatrix (Seattle), Technical Consultants. GeoSciences 330A at 12:30pm. Refreshments follow in the Grad Lounge (308). Call 822-2449.

## Students For Forestry Awareness

Speaker Series. Role Of Forestry In Managing For Carbon Cycling. Patrick Moore, BC Carbon Project. MacMillan 166 from 12:30-1:30pm. Call 731-2613.

## Obstetrics/Gynaecology Research Seminar

Evaluation Of Fetal Cells In Maternal Blood. Dr. R. Douglas Wilson, assistant professor, Medical Genetics, Obstetrics/Gynaecology. Grace Hospital 2N35 from 1-2:30pm. Call 875-2334.

## Statistics Seminar

Design Of Spatial Experiments. Prof. V. Fedorov, Academy of Sciences, Moscow. Angus 223 at 4pm. Call 822-4997/2234.

## Physics Colloquium



Dark Matter. Lawrence Krauss, Physics, Yale U. Hennings 201 at 4pm. Call 822-3853.

## FRIDAY, JAN. 31

## Obstetrics/Gynaecology Grand Rounds

Prevention Of Post-Operative Pain: Less Stress For Patient And Physician. Dr. Paul Kliffer, Obstetrics/Gynaecology. Shaughnessy Hospital Theatre D308 at 8am. Call 875-3108.

## Paediatrics Grand Rounds

Spectrum Of Erythema Multiforme. Dr. Julie Prendeville, Head, Dermatology; assistant professor, Paediatrics. G.F. Strong Auditorium at 9am. Call 875-2118.

## Student Health Outreach Panel Presentation



Living With HIV/AIDS. Speakers: People With Aids (PWA). SUB Auditorium from 12:30-1:30pm. Call 822-4858.

## Biotechnology Seminar

Modelling And Simulation Of Recaucizing Plant. Lijun Wang, graduate student, Chemical Engineering. ChemEngineering 206 at 3:30pm. Call 822-3238.

## Concert Series

UBC Symphony Orchestra. Jesse Read, conductor. Old Auditorium at 8pm. Call 822-5574.

## Graduate Student Society Folk Music Concert



Hazel Moats. No cover. Grad Centre Fireside Lounge from 8-11pm. Call 822-3203.

## SATURDAY, FEB. 1

## Vancouver Institute Saturday Night Lecture



Too Hot To Handle: The Story Of Cold Fusion. Dr. Frank Close, head, Theory Division, Rutherton Appleton Laboratory, Oxford. IRC #2 at 8:15pm.

Call 822-3131.

## SUNDAY, FEB. 2

## The Museum Of Anthropology Sunday Afternoon

Musick For Several Friends: Odhecaton And The Renaissance Improvisatory Tradition. Lisa Carwell, soprano; Trevor Tunnacliffe and Pat Unruh, both, viola de gamba; Jon Walick, lute. MOA Theatre Gallery from 2:30-3:15pm. Call 822-5087.

## MONDAY, FEB. 3

## Mechanical Engineering Seminars

Tool Wear In Milling with Orisumbola Oyawayo; Ship Motion Calibration, David Howard. Both, MASC students. Civil/Mechanical Engineering 1202 from 3:30-4:30pm. Refreshments provided. Call 822-6200/4350.

## Applied Mathematics Colloquium

Construction Of Optimal Feedback Controls. Dr. John D.L. Rowland, postdoctoral fellow, Imperial College, London, England. Math 104 at 3:45pm. Call 822-4584.

## Astronomy Seminar

The Low-Resolution Imaging Spectrograph For The Keck Telescope. Dr. J.B. Oke, Caltech. Geophysics/Astronomy 260 at 4pm. Coffee at 3:45pm. Call 822-2267/6706.

## Graduate Student Society Video Night



Double bill: The Icicle Thief/Open City. Large screen, admission. Grad Centre Fireside Lounge from 6-10pm. Call 822-3203.

## TUESDAY, FEB. 4

## Faculty Women's Club General Meeting

Voices/Images Of Our Past. Laurenda Daniells, retired archivist, Special Collections. Cecil Green Park at 9:30am. Reservations required; babysitting available. Call 222-1983.

## Financial Planning Seminar Series

Stock Market Investment In The 90s. Nancy McKinstry, Odium Brown Limited. Sponsors: Faculty Association, Centre For Continuing Education. Angus 104 from 12:30-1:20pm. Call 222-5270.

## Botany Tuesday Seminar Series

Evolutionary Diversification Of The Baccate Hawaiian Lobelioideae (Campanulaceae). Dr. Tom Lambers, Field Museum of Natural History, Chicago. BioSciences 2000 from 12:30-1:30pm. Call 822-2133.



# DRAFT POLICY AND PROCEDURES CONFLICT OF INTEREST

## PREAMBLE:

"From their beginnings, universities have accepted the responsibility for preserving and advancing formal knowledge. The University of British Columbia has shared this responsibility since its founding. Now with the development of a knowledge-intensive society, the crucial function of the university to preserve and extend our stock of knowledge grows ever more challenging."

-Second to None, the UBC Mission Statement

The University is a forum for critical discussion and debate and a locus of unbiased inquiry. It is responsible for advancing and disseminating knowledge. It is important to retain the public's trust and confidence in order to play such a role.

The University expects each of its members - faculty and staff - to act ethically and with integrity. Among these obligations, members acting on the University's behalf must avoid ethical, legal, financial or other conflicts of interest.

## POLICY STATEMENT:

Conflict of interest is a breach of an obligation to the University that has the effect or intention of advancing one's own interest or the interests of others in a way detrimental to the interests or potentially harmful to the integrity or fundamental mission of the University. Conflicts of interest and the appearance of conflicts of interest must be avoided.

Cases fall into three categories: those which require disclosure, those which also require prior approval and those which are prohibited. Since the possibilities for conflict of interest are almost limitless and cannot all be covered in procedures, members are expected to conduct themselves at all times with the highest ethical standards in a manner which will bear the closest scrutiny, and are responsible for seeking guidance from the appropriate source before embarking on activities which might be questionable.

This policy is meant to protect both the individual and the institution. Members should take the initiative in disclosing conflicts or potential conflicts of interest. This is an essential first step. Disclosure is important in dealing with situations in which there may be differing judgements about whether a conflict exists or in which it is not clear if the appropriate action is to refrain from the activity or to seek prior approval.

Guidelines have been developed about the acceptability of certain activities in the following areas: extra-university activities, financial and non-financial benefits, confidential information, favouritism in employment, scholarly activity, purchasing and selling activities, teaching, and external relations.

Rigorous application of the guidelines is important. It is expected that administrative heads of units and persons exercising significant authority will take immediate and appropriate action when they become aware of violations.

With appreciation for the work of the initial advisory group:

**Philip Bryden**, representing:

Law

**Jerry Coombs**, representing:

## UNIVERSITY OF BRITISH COLUMBIA



January 15, 1992

Dear Colleagues:

I urge you to review the following draft policy and procedures on conflict of interest. They are at an early stage of development and your advice on them will greatly assist in further revisions.

While a number of UBC policies touch on conflict of interest issues, they are not coordinated and do not address the broad range of topics of concern to UBC and its faculty and staff members. Bringing these matters together in a policy statement with comprehensive procedures to support it will increase consistency across campus, provide formal records where needed, and provide protection for both individuals and UBC. This draft is intended to replace existing policies PeB-7 (Honoraria Paid from Research Contracts and from Other Funding Agreements to Members of Faculty), PeB-8 (Honoraria to Full-Time Members of Faculty from University Funds), PeB-9 (Faculty and Staff Contracting Work with the University), PeB-16 (Outside Professional Activities), PeB-20 (Grant Funds - Nepotism), PeB-25 (Monies Deposited in University Accounts by Members of Faculty), and PeB-26 (Honoraria in Specific Purpose of Sponsored Research Accounts).

Substantial consultation was used in developing the initial drafts, and I would like to take this opportunity now to thank those who served on the nine committees charged with preparing the initial drafts. Your suggestions for further improvements will be most helpful if received before the end of February. Please address submissions to Libby Nason, Provost's Assistant c/o the President's Office.

Yours sincerely,

David W. Strangway  
President

### Education

**Mike Hartwick**, representing:

VP Administration & Finance

**Michael McDonald**, representing:

Arts/Graduate Studies

**Bertie McClean**, representing:

VP Academic & Finance

**Bernie Sheehan**, representing:

VP Student & Academic Services

**Vince Sweeney**, representing:

Medicine

## PROCEDURES:

### (a) EXTRA - UNIVERSITY ACTIVITIES

1. Full-time appointments involve a year-round (except for the vacation period) commitment to teaching, research, service, support activities, and participation in the life of the University.

While classes are in session, faculty members normally will be assigned formal teaching duties. They are expected to supervise graduate students or engage in other teaching activities as required and carry out scholarly activity all year. During parts of the academic year when full teaching duties are not assigned or University service requirements are diminished, the faculty member's scholarly or professional activities are expected to increase through research, field work, writing or studying.

Similarly, for those full-time staff members who support the yearly academic cycle

with a resulting varied workload, it is expected that planning and preparation or other activities will fully engage them over the course of the year.

2. Outside professional activities are extra-University activities which involve the same kind of specialized skills and knowledge that the faculty or staff member practices in the employ of the University, and are at the cutting edge of the field or discipline, not merely involving the routine/standard practice of a profession. Activities such as volunteer work, community work and the running of businesses not related to work done at the University are normally not considered outside professional activities.

3. The University recognizes that the competence and effectiveness of faculty and staff may be enhanced by their participation in certain kinds of outside professional activities. For example, they can contribute to the professional development of the individual through the acquisition of new skills, external contexts and techniques or provide additional opportunity for application of knowledge to practical situations, and thus increase the individual's effectiveness in teaching, research, service and support endeavours.

4. Furthermore, such participation frequently advances the purpose of the University in serving the needs of the larger community which it is a part through fostering the transfer and application of knowledge.

5. Yet, extra-University activities may produce consequences that are not to be measured merely in terms of hours ex-

pected. The distraction of non-University occupations, the expenditure of emotional energies, the obligations contingent on accepting external fees and salaries may all interfere in the proper discharge of the primary University duties.

6. The essential principle of the University's policy on outside commitments to tasks outside the responsibilities of faculty or staff members to the University - that is their responsibilities to students, the discipline, colleagues, service and support - must be such that their University responsibilities are completely satisfied.

7. Faculty members shall disclose in writing the extent, nature, and timing of all outside professional activities to the administrative head of their unit so that the individual's obligations and the extent of those obligations to outside organizations are known by the University.

8. Prior written approval of the University (granted by the administrative head of the unit) shall be required in the following cases:

(i) when University services and facilities will be used for outside professional activities, except when such uses are already provided for in existing regulations of the University, Faculty or Department (such as approved secretarial assistance for a faculty member editing a journal); this approval shall be given only if appropriate arrangements for such uses and for their payment (including reimbursement at fair rates for labour, materials, equipment and space) are made;

(ii) when rescheduling of activities (e.g. classes or office hours) will result;

(iii) when the total outside professional activity for a faculty member in any one year becomes substantial, that is, more than an accumulated 26 days per year, exclusive of vacation period;

(iv) when a faculty member will be off campus for a period of 30 consecutive days (excluding holidays);

(v) when outside professional activities are increased during a period of study leave;

(vi) whenever a member of staff wishes to engage in an outside professional activity during normal hours of work.

9. Subject to approval by the President, Departments or Faculties may formulate their own definition of "substantial" and formulate more detailed procedures on outside professional activities, consistent with these university-wide procedures, concerning the distinction between paid and unpaid professional activity, participation in continuing education courses, the procedures for reporting outside professional activities, and other matters.

10. Activities of a non-professional nature (such as running a business, or performing voluntary or community work), which do not enhance the competence and effectiveness of faculty and staff members in their work at the University, must neither interfere in any way with their full commitment of time and energy to the University nor use any resources of the University.

### USE OF UBC'S NAME

Members of the University community may express their opinions outside the University with the same freedom as other citizens. Such expressions are solely the responsibility of the individual, and the University assumes no responsibility for them,



## DRAFT POLICY AND PROCEDURES - CONFLICT OF INTEREST

except for statements issued on behalf of the University by those so authorized to act by the University administration.

With appreciation for the work of the initial advisory group:

**Patricia Arlin**, representing:  
*Education*  
**Jerome Atrons**, representing:  
*Law*  
**David Barrett**, representing:  
*Forestry*  
**Michael Blades**, representing:  
*Science*  
**Peter Frost**, representing:  
*Commerce & Business Administration*  
**Phillip Hill**, representing:  
*Applied Science*  
**Bertie McClean**, representing:  
*VP Academic & Provost*  
**Tim Miner**, representing:  
*VP Administration & Finance*  
**Bill Webber**, representing:  
*VP Academic & Provost*

**(b) FINANCIAL AND NON-FINANCIAL GAIN**

1. Acceptance of gifts, entertainment, travel, and services for personal use from people or companies who do business with the University could impede the objectivity of faculty and staff members and create a conflicting obligation to that person or company contrary to the obligation of faculty and staff members to UBC.

For this reason, it is incumbent on the individual faculty or staff member to initiate a discussion with the administrative head of the unit whenever the individual is about to be offered gifts, entertainment, travel, or services so that the issues surrounding obligation may be completely disclosed and approval obtained before a personal benefit is received. Administrative heads of units, in considering requests, will take into consideration the source, value, purpose and frequency of offering in assessing the case. Any potential detriment to the University which is identified should be grounds for denial of the request.

2. A conflict of interest appears to exist when faculty and staff members take part in decisions to transact UBC business with a company in which they have a material interest. Therefore, the responsibility rests with individuals to disclose whenever they have influence over a decision about a proposed contract between UBC and a company in which they have substantial holdings and to withdraw from the UBC decision-making process.

3. UBC equipment, materials, supplies and services are for University use and not for the personal use of members of faculty or staff.

It is normally not acceptable for a department to permit the casual borrowing of commonplace equipment. However, if borrowing is permitted, it must not impede the operation of UBC functions in any way and the head of the administrative unit determines in advance the amount of charge, taking into account depreciation, to be applied as a rental.

UBC owns many pieces of large-scale, specialized equipment not available elsewhere in the province. As a service to the community, use of this equipment may be arranged at the administrative unit's discretion, provided that such use does not interfere with the activities for which the equipment was acquired, that appropriate supervision of the use of the equipment is arranged, that the borrower purchase insurance (not only for the physical asset during the period of the loan but also for liability for the equipment's operation, naming UBC on its policy as an additional insured), and that

rental is charged at established rates (taking into account depreciation and rates reflective of the value of the equipment's use).

4. Many faculty and staff members are remunerated for consultation in their professions, and to avoid the appearance of conflict of interest, should refrain from soliciting clients for private practice through connections at the University. This applies not only to government agencies, private companies and the public, but also to students and fellow members of faculty and staff. For example, a perception on the part of a student that he/she is being coerced/exploited through referral for assistance could be of detriment to UBC and the student.

Student requests to their instructors/advisors for professional service should be referred to other experts. When such requests are of a nature such that the instructor/advisor believes he or she should provide the professional service, this should only be done after discussion of the matter with the administrative head of the unit to further explore alternate sources. Only in exceptional cases should the referral be retained by the instructor/advisor.

With appreciation for the work of the initial advisory group:

**Bob Blake**, representing:  
*Science*  
**George Eaton**, representing:  
*Agricultural Science*  
**Peter Frost**, representing:  
*Commerce & Business Administration*  
**Bob Hindmarch**, representing:  
*Vice President Student & Academic Services*  
**Ken Kush**, representing:  
*Vice President Student & Academic Services*  
**Bertie McClean**, representing:  
*Vice President Academic & Provost*  
**Chuck Rooney**, representing:  
*Vice President Administration & Finance*  
**Jack Saddler**, representing:  
*Forestry*  
**Stephen Salzberg**, representing:  
*Law*  
**Terry Sumner**, representing:  
*Vice President Administration & Finance*

**(c) CONFIDENTIAL INFORMATION**

(i) While an important function of a university is dissemination of knowledge and transfer of information, there are situations when certain information is confidential. Confidential information is that which a reasonable person would wish to keep private and that which might be injurious to the University or an individual if released. Confidential and sensitive information about the affairs of the University within the knowledge of members of faculty and staff is not to be disclosed to others.

Examples of confidential information include, but are not limited to, most personnel matters, matters relating to a student's performance and status, and donor information. For instance, personal information such as earnings, address, marital status, social insurance number, etc. about any employee of the University may not be released to enquirers by either the Department of Human Resources or by any other University department, faculty or school, without prior written authorization from the individual employee in question. Likewise, no such or similar information about a student may be released to enquirers without his or her prior written authorization. Furthermore, certain aspects of University financial information, including sales, purchases, funding, tenders, real estate transactions and financial planning is both confidential and sensitive.

At the University, many committees are charged with responsibilities for, or at times involved in discussing, confidential and sensitive matters. Faculty and staff members participating on such committees are alerted to the importance of maintaining the confidentiality of details of the discussion and decisions made. Examples include personnel committees involved in the selection or appointment of candidates for employment, in decisions relating to promotion, tenure, and salary adjustment, committees involved in the academic assessment of students, and administrative committees dealing with such matters as financial management and control, procurement and tendering, the selection of architects, etc.

The responsibility for maintaining the confidentiality of information of documents includes the responsibility for ensuring, as far as is reasonable and practicable, that such information or documents are not directly or indirectly made available to unauthorized persons.

**(ii) DIRECTORSHIPS AND MEMBERSHIPS IN BOARDS**

While there are many benefits to be gained by both the individual and UBC from a faculty or staff member's active involvement in community service activities, there is also the concern that such activity could conflict with a faculty or staff member's obligations to the University.

A faculty or staff member approached to serve as a member of a board, whether of a for-profit, charitable, or advocacy organization, must obtain the approval of his or her department head and dean (or vice president in the case of a non-departmentalized faculty or administrative department) if such service has the potential to affect performance of the job for which the member is employed. In granting approval, consideration will be given to the interests of the University, as well as to benefit that might accrue to the individual and outside organization from such membership. If there is potential for detriment to the University, approval will not normally be given. Unless appointed as a representative of the University, and recognized and recorded as such by the University, a faculty or staff member serving on the board of an outside organization does so as in his or her individual capacity.

**(iii) INSIDER KNOWLEDGE**

Unless the individual has proprietary rights, it is deemed to be unprofessional conduct and therefore not permitted to make use of knowledge gained through employment at UBC which is not generally available to the public for non-University purposes or investments. It is also inappropriate to use for personal gain privileged information acquired as a result of a faculty or staff member's University-supported activities.

With appreciation for the work of the initial advisory group:

**John Chase**, representing:  
*Vice President Administration & Finance*  
**Don Farquhar**, representing:  
*Vice President Student & Academic Services*  
**Dorothy Finnigan**, representing:  
*Vice President External Affairs*  
**Brian Holl**, representing:  
*Agricultural Science*  
**Bertie McClean**, representing:  
*Vice President Academic & Provost*  
**Tae Oum**, representing:  
*Commerce & Business Administration*  
**Ruth Warick**, representing:  
*Vice President Student & Academic Services*  
**Bob Will**, representing:  
*Vice President Academic & Provost*

**(d) FAVOURITISM IN EMPLOYMENT**

The employment policies of many organizations proscribe the employment of members of the same family or require some form of independent approval where such conflicts of interest occur. The problem of this approach is to define as familial all the personal relationships that could lead to preferential treatment in the hiring of particular individuals. As an example, the hiring of a next door neighbour or a fellow club member, for that reason alone, may be just as unfair and damaging to an organization's reputation and public image as the hiring of a member of the same family in similar circumstances.

Therefore, the University takes every precaution to guard against favouritism of every kind in hiring. Faculty and staff members must be scrupulously fair and honest in ensuring that positions are well advertised and that appointments are offered always to the best-qualified available candidates. In so doing, however, the University acknowledges that, occasionally and in unique circumstances, there are cases in which, to fulfill the mission of the University, potential conflicts of interest may arise.

When a faculty or staff member is in a position to influence personnel decisions (such as the recruitment, offer of employment, evaluation of performance, promotion, granting of tenure, or termination of employment) with respect to another with whom the faculty or staff member has a relationship which might reasonably be construed as a conflict or potential conflict of interest, then the faculty or staff member has a duty to disclose the situation to the administrative head of the unit.

In selection decisions, the administrative head of the unit has the responsibility of deciding whether approval will be given to make an offer of employment. Among other considerations, the administrative head should seek assurance that a reasonable search has been made, taking into account the nature of the work to be done and that the applicant is the best available candidate for the job.

Normally, faculty and staff members are expected to avoid apparent and actual conflict of interest situations by not participating in the decision-making process with respect to the other person. For example, a faculty member is required to withdraw from a departmental committee charged with evaluating the other person's case for tenure or promotion.

There are, however, cases in which this is not possible, such as that of a researcher who employs a research assistant on a grant. If, in such a situation, the faculty or staff member and/or administrative head of unit deem that a disclosed potential conflict of interest may warrant monitoring rather than avoidance, the administrative head will consult with the Associate Vice President Human Resources and/or Associate Vice President Academic, as appropriate, who will determine procedures to be followed to ensure the systematic monitoring of the potential conflict of interest throughout the period of employment. The process by which monitoring occurs shall be consistent, fair, unbiased and documented in order to protect both the individual(s) and the University and will normally include events such as recruitment, offer of employment, performance evaluation, tenure, promotion, discipline and termination of employment.

A record of each case will be documented and kept on file in the office of the appropriate Associate Vice President for the duration of the employment and in accordance with legislated requirements governing employ-



# UNIVERSITY OF BRITISH COLUMBIA

## DRAFT POLICY AND PROCEDURES - CONFLICT OF INTEREST

ment records. Each record must contain a signed statement of agreement between the individual(s) and the University which permits the University to: release information concerning the process used to monitor the potential conflict of interest; and, with the written permission of the individual(s) for whom there is a potential conflict of interest, release information concerning the substantive elements of the case.

Members of faculty and staff will be asked to review their current relations with other employees at the University and to disclose any potential conflicts of interest which might presently exist to the administrative head of their unit.

With appreciation for the work of the initial advisory group:

- Rae Boudouin**, representing:  
*Arts*
- Elizabeth Bongie**, representing:  
*Arts*
- Frank Eastham**, representing:  
*Vice President Administration & Finance*
- Carol Gibson**, representing:  
*Vice President Student & Academic Services*
- Tony Hickling**, representing:  
*Law*
- Bertie McClean**, representing:  
*Vice President Academic & Provost*
- Jim Sherrill**, representing:  
*Education*
- Bill Webber**, representing:  
*Vice President Academic & Provost*
- Larry Weiler**, representing:  
*Science*

### (e) SCHOLARLY ACTIVITIES

Since members of the university community build on each other's research, creative and professional work of distinction, they are mutually dependent on the honesty and care with which they conduct such work and report results. Members can foster an environment characterized by openness of communications and interdependence of thought and work by promoting honesty and appropriate ethical research behavior, and by discouraging misconduct, unethical behavior and irresponsible research, creative or professional work.

Conflict of interest in the conduct and reporting of research/creative/professional work can take many forms. In addition, the University's commitment to liaise with industry and transfer technology will often result in arrangements which are potential conflicts of interest.

To protect the University, faculty, staff and students, full disclosure in advance of any potential conflict of interest and, where appropriate advance approval, is necessary. Any member of the University community with a potential conflict of interest such as those described below shall disclose in writing the details to the administrative head of the unit in which they work, with a copy to the next level up and the Vice President Research.

The following categories illustrate the range of situations which faculty and staff members should recognize as potential conflicts of interest and are not an exhaustive list of all types of conflict of interest situations in the areas of research and industry liaison.

**SERVICE AS A REFEREE:** Since the academic community relies heavily on peer review for evaluation of research, an ethical burden falls on the shoulders of referees. In the role of referee, the researcher could attempt to take advantage of the knowledge gained through the review processes associated with research proposals to agencies and submissions to journals and other publications.

For example...

- It could be a conflict of interest if research applications and reports are not handled expeditiously, and the content of such applications and reports not treated confidentially and honestly.
- Use of applications and reports for purposes other than the review is considered a conflict of interest.

**ETHICAL TRADITIONS OF THE DISCIPLINE:** On certain matters, members of a discipline or field of study may have vested interests that correspond to the interests of a researcher who is under review which are conflicts of interest in the adjudication of ethical issues. As leaders in their fields, members of the University community are expected to offer their expertise; however, when the University is investigating allegations of possible unethical conduct arising internally, the views of scholars with a vested interest should be balanced with views from outside the field or discipline.

For example...

- It could be considered a conflict of interest for the issues surrounding the sacrifice of animals in various situations, such as teaching laboratories for first year courses or in research of great potential to alleviate severe human suffering, to be decided solely by researchers who use animals in their work.

**RECOGNITION OF SCHOLARSHIP:**

It is unethical and not acceptable to fail to give proper recognition to any reliance on the ideas, work or assistance of others, or to fail to obtain prior permission for the use of work done or results obtained by others.

**INDEPENDENCE IN CHOOSING LICENSEES:** There are a variety of possible avenues from which UBC can choose for licensing a discovery or invention, such as a new company established for the specific purpose of bringing the invention to market or an existing company in British Columbia or of international origin. Often the choice is directed to a company which can best market the invention/discovery and has the capability to commercialize the product with wide dissemination. The importance of transfer not only of the patent but also the know-how is recognized as essential to the success of the venture. In making these decisions, the issue of personal gain of the researcher must be addressed. This requires the complete disclosure on the part of the researcher about involvement with companies under consideration, as the royalties awarded through the license will be adjusted to take into consideration any company holdings of the researcher.

**BUSINESS INVOLVEMENT:** A member of the faculty or staff is considered to have a potential conflict of interest if, in dealings with the University, the best interests of the University could be compromised in the personal interest of the faculty or staff member or in the interests of an external company or agency in which the individual has a significant interest. "Significant interest" implies that, as a result of affiliation with an outside organization (formal or informal), the individual can influence that organization's decisions to the detriment of UBC. Examples of significant interest that could lead to this situation include but are not limited to:

- Share position
- Directorship
- Managerial position (paid or unpaid)
- Consulting relationship

For example...

- A company in financial difficulty owes UBC money for a cooperative research program; a UBC employee with a significant interest in the company could take part in a decision to pay creditors other than UBC.
- A UBC graduate student supervised by

a UBC faculty member who has a significant interest in a company works on a project of interest to the company is asked to assign his or her intellectual property to the company without disclosure to UBC.

• A UBC faculty member has a significant interest in a company and through the activity utilizes intellectual property to which students, UBC staff or other faculty members have made substantial contributions without recognition or compensation to the other individuals.

• Supervising faculty or staff members use University students or staff on University time to carry out work on behalf of a company in which they have a significant interest.

• University resources, space or facilities are used by a faculty or staff member to benefit a private concern in which the individual has a significant interest.

• Charges for use of the University's specialized laboratories or equipment which are differential for outsider organizations, may lead to allegations of favoritism.

With appreciation for the work of the initial advisory group:

- Kellogg Booth**, representing:  
*Graduate Studies*
- Don Brunette**, representing:  
*Dentistry*
- Frank Curzon**, representing:  
*Science*
- Hermann Dommel**, representing:  
*Applied Science*
- J. Evan Kreider**, representing:  
*Arts*
- Jack Leigh**, representing:  
*Vice President Student & Academic Services*
- Bertie McClean**, representing:  
*Vice President Academic & Provost*
- Jim Murray**, representing:  
*Vice President Research*
- Steve Ryan**, representing:  
*Vice President Administration & Finance*
- Brent Skura**, representing:  
*Agricultural Sciences*
- Rick Spratley**, representing:  
*Vice President Research*

**PAYMENT OF HONORARIA** (replaces PeB-7, PeB-8, PeB-25, and PeB-26)

1. Honoraria to full-time members of faculty or staff for services rendered to departments other than departments of which they are members, will normally not be granted if the payment comes from University funds. In exceptional cases, payment of such honoraria may be allowed, subject to the approval of the appropriate Deans, the Office of the President and the Board of Governors.

The above ruling does not apply to honoraria paid to full-time members of faculty or staff from funds specifically provided for the purpose (e.g. stipends for extra-session and continuing education teaching).

2. Research contracts between the University and contracting agencies involving honoraria paid to members of faculty or staff shall be approved by the Office of the President (Research Administration) only on the recommendation of the Dean of the Faculty, with the approval of the Head of the Department. If so recommended, the Research Administrator is authorized to sign such contracts on behalf of the University, provided that the total of all honoraria paid to the faculty or staff member from all sources (contracts, grants, etc.) does not exceed \$10,000 during the appointment year (July 1 to June 30).

3. Proposals for research contracts which involve honoraria to a faculty mem-

ber in excess of \$10,000 as defined in item #2 above shall be forwarded by the Dean of the Faculty to the Vice President Academic & Provost for consideration.

4. The Research Administrator shall forward to the Vice President Academic & Provost at the end of each month a list of all research contracts which involve honoraria to members of faculty.

5. Faculty and staff members are to select the method of receiving an honorarium from the following options in advance of any payment being made:

(a) Honoraria may be accepted for an individual's personal use and are then to be considered as income, are included in the individual's T4 slip for income tax purposes, and are paid through the Payroll Section of the Department of Financial Services. The procedure for initiating this payment is:

(i) A memo requesting payment, indicating its purpose and the account number to be charged, signed for approval by both the administrative head of the unit and one additional level above, is sent to Faculty Records in the Office of the Vice President Academic & Provost. When a payment is to be made by another Faculty, the signatures of both deans are required.

(ii) Payments may be requested in monthly instalments or in one or more lump sums.

(b) Faculty or staff members may decline the honorarium for personal use, but may wish to use it for research, for a donation to the University or for other University activities. A member may also direct monies received for consulting or other professional fees to a University account. The individual makes a written request for a separate account to be established, approved by the Director or Head and Dean (Dean only in non-departmentalized Faculties and Director and Vice President for in non-academic units).

For accounts to be used to promote research, the authority is the Research Administrator. For accounts to be used for any other University activities, the authority is the Vice President Administration and Finance. In all cases, a description of the purpose of the account must accompany requests for these transfers. The request is approved by the Department Head and the Dean. Signing authority is in the name of a person senior to the grantee. Expenditures from such accounts are consistent with regulations concerning University accounts. In particular, these accounts shall not be used, directly or indirectly, for expenditures that provide personal or private benefits to the donor or to any other person.

With appreciation for the work of the initial advisory group:

- Kellogg Booth**, representing:  
*Graduate Studies*
- Don Brunette**, representing:  
*Dentistry*
- Frank Curzon**, representing:  
*Science*
- Hermann Dommel**, representing:  
*Applied Science*
- Evan Kreider**, representing:  
*Arts*
- Jack Leigh**, representing:  
*Vice President Student & Academic Services*
- Bertie McClean**, representing:  
*Vice President Academic & Provost*
- Jim Murray**, representing:  
*Vice President Research*
- Steve Ryan**, representing:  
*Vice President Administration & Finance*
- Brent Skura**, representing:  
*Agricultural Sciences*
- Rick Spratley**, representing:  
*Vice President Research*



## DRAFT POLICY AND PROCEDURES - CONFLICT OF INTEREST

**(f) PURCHASING/SELLING PROCEDURES**

The University's approach to avoiding conflicts of interest in purchasing and selling is to deal at arm's length with suppliers and customers by appointing agents authorized to make decisions on purchasing and selling who are separate from units and individuals standing to benefit from the purchase/sale.

**PURCHASING**

Two objectives of the University's purchasing policy are:

- to ensure that the University's immediate and continuing requirements for materials, equipment and services are achieved at optimum value. Optimum value in purchasing can be defined as "the delivery of the right good and/or service to the right place, at the right time and at the right price."
- to ensure that all purchasing activities are conducted with the highest level of integrity, in full compliance with the law and relevant University policies.

University-vendor relationships are important for:

- ensuring the long-term procurement of goods and services of reliable quality and value;
- ensuring that our funds are being spent wisely to enhance our position relative to other public institutions for government funding and fund-raising;
- encouraging vendors to have confidence in a system which provides equal opportunity to all vendors, without favouritism.

To avoid conflicts and perceptions of conflicts of interest in relationships between vendors and members of the University community, the University has put into place a system of designated agents who operate at arm's length with vendors. For example:

- Purchasing Department for equipment, supplies and services
- Bookstore for bookstore merchandise and services
- Library for books and library materials
- Campus Planning and Development for design and construction contracts
- Other areas designated by the Director of Purchasing as decentralized purchasing offices, eg. Food Services for food commodities whose signing authorities are established under a signing bylaw of the Board of Governors.

All acquisitions or contracts above the minimum dollar value established in the Purchasing Policy will be developed through the public tendering or competitive bidding process. Exceptions may be approved by the Director of Purchasing or appropriate vice president if special requirements (eg. small value contracts for creative work) would make the competitive bidding process detrimental to the University.

All faculty and staff members who have decision-making authority or who are in a position to influence a decision about a purchase or contract must disclose in writing any personal material interest in a prospective vendor to the Director of Purchasing (or Director of the Bookstore, University Librarian, Director of Campus Planning, etc. as appropriate) and withdraw from the decision-making process, if that is deemed appropriate.

In order to obtain the best possible value for the University dollar, specifications should be constructed in as generic a way possible. This will avoid the appearance of tailor-making a purchase request to favour a particular supplier. It is entirely appropriate to specify considerations relevant to the purchase, such as the quality of service expected, delivery time, and method and timing of billing.

**SELLING**

University relationships with its clients/customers are important for maintaining the public perception that the University pro-

vides good value for the consumer's dollar, competes fairly with other suppliers of comparable goods and services, and deals equitably with all its client/customer groups.

To avoid conflicts of interest in relationships between clients/customers and members of the University community, the University has designated the Surplus Equipment Recycling Facility as agent, responsible for disposal of all surplus furniture and equipment. Many units on campus sell products and services to on-campus and off-campus clientele, such as Food Services, the Bookstore, Student Housing and Conference Centre, Athletic Facilities, the Library, Media Services, UBC Press, Biomedical Communications, continuing education programs of various Faculties, and many other departments in accordance with sound retail principles and controls established under the supervision of the Department of Internal Audit.

Any transfer of specialized equipment to a faculty member who has resigned from UBC must have the authorization of the Vice President Research, upon the recommendation of the dean. In arriving at a decision, consideration should be given to possible alternate uses/needs for that equipment at UBC, its value, the method of cost recovery and any potential use to UBC at its proposed new location.

A conflict is considered to exist whenever a personal consideration, benefit or material interest could potentially interfere with optimizing the dollar return to UBC on its goods or services sold. For this reason, the establishment of prices at fair market value and the dissemination of information about the availability for sale of goods and services are critical.

All faculty and staff members who have decision-making authority or who are in a position to influence a decision about a sale must disclose any personal material interest in the transaction to the vice president to whom their department reports, copying administrative heads and/or deans, and withdraw from the sale process if deemed appropriate.

With appreciation for the work of the initial advisory group:

**Keith Bowler**, representing:

*VP Administration & Finance*

**Debbie Harvie**, representing:

*VP Administration & Finance*

**Michael Kelly**, representing:

*VP Student & Academic Services*

**Bertie McClean**, representing:

*VP Academic & Provost*

**Peter Milroy**, representing:

*VP Student & Academic Services*

**Ron Reid**, representing:

*Pharmaceutical Sciences*

**Mary Risebrough**, representing:

*VP Student & Academic Services*

**Christine Samson**, representing:

*VP Administration & Finance*

**Ann Turner**, representing:

*VP Student & Academic Services*

**Don Wehrung**, representing:

*Commerce & Business Administration*

**(g) TEACHING**

1. University teachers should avoid clear conflicts of interest which may impede or compromise their responsibility to instruct and evaluate students in a fair and effective manner.

2. Where there is uncertainty about the existence of a conflict of interest, or about how to avoid it, it is the responsibility of the teacher concerned to seek consultation with the administrative head of unit.

**EXAMPLES:**

The examples below are intended to assist members of the University community in identifying and avoiding potential con-

flicts of interest. They are illustrative of the range of issues which concern teaching and are by no means all-inclusive.

(i) Students enrolled in courses of teachers who know them in an extra-University context (eg. relative, friend, acquaintance):

- A conflict of interest could appear to exist even if the applicant is not a relative of a person influential for admission to the university, a faculty, school, department, program or course. For instance, during the admission process, the child of a decision-maker for a granting agency could apply to a course for which a faculty member has responsibility for admission decisions. If the faculty member is, or could be, in the position of applying for a grant from the same agency, then it would be expected that the faculty member would consult on the matter with the administrative head of the department before deciding on the admission of the student, to avoid any appearance of conflict.

• When a close personal relationship between a teacher and a student which might appear to compromise the objectivity of the teacher develops, it is the responsibility of the teacher to disclose the matter to the administrative head of the unit and to cooperate with measures for avoidance of the conflict of interest that the administrative head considers appropriate.

• When avoidance of apparent conflict of interest would be unfair to a student (e.g. because a particular course is required for their program), administrative heads of units should make arrangements for independent evaluation of the student's work and address perceptions other students may have regarding fairness and impartiality, as appropriate, for the protection of the student, the teacher and the University.

(ii) Apparent exploitation of students to be avoided:

- engaging students to perform services of any kind for the teacher where there is an apprehension that failure to comply will result in a biased evaluation;
- failure to give proper recognition to any reliance on the ideas, work or assistance of students or failure to obtain, where appropriate, prior permission for the use of work done or results obtained by students;
- use of students as human subjects in experiments where there is a reasonable apprehension that to refuse will affect their academic standing;
- excessive assignment of medical students to routine clinical service duties for which payment is received from the Medical Services Association by a hospital or supervising physician;
- student employment by a faculty-owned company;
- providing students to local employers under the guise of cooperative education when such situations do not enhance the students' educational experience through opportunities to acquire/apply/test knowledge.

(iii) Concerns about personal financial benefit when dealing with students:

- the selection of textbooks and other instructional aids for the course based solely on the personal benefit to the teacher;
- the sale of lecture notes at a profit by the instructor rather than through the Bookstore or Departmental Office;
- the acceptance of money from a student for tutoring by a faculty member or the acceptance of money or significant gifts from any student or potential student;
- the conferring of money, privileges or benefits upon students with whom the teacher has an extra-University connection. An example of this would be to

choose, from the student body, a relative to be a research assistant (see also group 5's work on favouritism).

With appreciation for the work of the initial advisory group:

**Peter Boothroy**, representing:

*Graduate Studies*

**Jack Diamond**, representing:

*Pharmaceutical Sciences*

**Keith Farquhar**, representing:

*Law*

**Bertie McClean**, representing:

*VP Academic & Provost*

**Bob Morford**, representing:

*Education*

**Gordon Page**, representing:

*Health Science Coordinator*

**Gaylea Wong**, representing:

*VP Academic & Student Services*

**(h) FUNDRAISING**

1. Although interest from UBC's external community about the teaching and research programs is welcome, decisions concerning the academic affairs of the University will be made through the appropriate, established bodies and authorities, and not be solely responsive to external pressures. The academic decision-making process is established in part to ensure that there is sufficient academic rationale for activities undertaken. For an endowment to be established for academic purposes (eg. scholarship, chair, professorship, centre), approval must be obtained by both Senate and the Board of Governors.

2. Solicitation activities are cleared with and all donations are coordinated through the Development Office staff who are assigned to campus units. This approach creates an arm's length relationship between the donor and members of the University community who have an interest, be it personal or professional, in the donation. It also ensures relationships between donors and the University community are optimal, avoids duplication and enhances the potential for fundraising.

3. The Development Office is responsible for prospect research and clearance, therefore being knowledgeable about the donor before acceptance of gifts, to prevent as far as possible the embarrassment related to sources unacceptable to the University. See "UBC Guide to Development and Fund-Raising", Section C.

4. It is unacceptable for University representatives to confer any special treatment on donors in the normal academic functions of the University, such as admissions, progress of students and honorary degrees.

5. Donors to particular research programs who request withholding publication of results will be offered the same conditions as provided for research contracts.

With appreciation for the work of the initial advisory group:

**David Edgington**, representing:

*Arts*

**Janis Hamilton**, representing:

*Vice President External Affairs*

**Mike Hartwick**, representing:

*Vice President Administration & Finance*

**Heather Keate**, representing:

*Vice President Student & Academic Services*

**Bertie McClean**, representing:

*Vice President Academic & Provost*

**Andy Mular**, representing:

*Applied Science*

**Mary Stott**, representing:

*Vice President Student & Academic Services*

**Tony Voon**, representing:

*Medicine*

**Don Wehrung**, representing:

*Commerce*

# ADVERTISEMENT

January 27 – February 8

### Statistics Seminar

The Use of Historical Control Data In Bioassay For Carcinogens. Prof. R. Smythe, George Washington U., Washington, DC. Angus 223 at 4pm. Call 822-4997/2234.

### Medical Genetics Seminar



Mouse Genetics: What Can It Teach Us About Atherosclerosis? Renee Le Boeuf, PhD, Medicine, U. of Washington, Seattle. IRC #1 from 4:30-5:30pm. Refreshments at 4:15pm. Call 822-5312.

### WEDNESDAY

### Forestry Seminar

The Role Of The University Of Northern British Columbia In Forestry. Prof. Geoffrey R. Weller, president, U. of Northern British Columbia. MacMillan 166 from 12:30-1:30pm. Call 822-3553.

### Geography Colloquium

North To The Future: The Development Of Health Care And Post-Secondary Educational Services In Northern Regions. Geoffrey Weller, president, U. of Northern British Columbia. Geography 201 at 3:30pm. Refreshments at 3:25pm. Call 822-2985/2663.

### Wednesday Noon Hour Concert Series



Lawrence Cherney, oboe; Eric Wilson, violoncello; Ed Norman, piano. Music Recital Hall at 12:30pm. Admission \$2. Call 822-5574.

### Microbiology Seminar

Studies On The E. Coli F41 Adhesin. Pete Lutwyche, Chemistry/Pathology. Wesbrook 201 from 12:30-1:30pm. Call 822-3308.

### Orthopaedic Grand Rounds

Orthopaedic Engineering Research. Chair: Dr. Robert W. McGraw; Speaker: Dr. Michael Askew, Akron, OH. Eye Care Centre Auditorium from 7:30-8:30am. Call 875-4646.

### THURSDAY, FE

### Pharmacology Seminar

Two Dimensional Protein Gel Electrophoresis: Application To Cystic Fibrosis Airway Studies. Dr. Michael Bridges, Pharmacology/Therapeutics, Medicine. IRC #5 from 11:30am-12:30pm. Call 822-2575.

### Geological Sciences Seminar Series

"Ice" Beneath The Deep Sea: Studies of Methane Hydrate Layers Beneath The Continental Slope - A Possible Factor In Global Climate. Roy Hyndman, Pacific Geoscience Centre. GeoSciences 330A at 12:30pm. Refreshments, Grad Lounge. Call 822-2449.

### Students For Forestry Awareness



Speaker Series. Wildlife Diversity In Old Growth And Second Growth Coastal Forests. Dale Seip, Wildlife Ecologist, Ministry of Forests. MacMillan 166 from 12:30-1:30pm. Call 731-2613.

### Physics Colloquium

TBA. Hennings 201 at 4pm. Call 822-3853.

### FRIDAY, FEB. 7

### Biotechnology Seminar

Electro-Bleaching Of Pulp. Hong-Liang Hu, graduate student, Chemical Engineering. ChemEngineering 206 at 3:30pm. Call 822-3238.

### Paediatrics Grand Rounds

Latest Advances In Otitis Media. Dr. Heinz F. Eichenwald, William Buchanan Professor of Paediatrics, Paediatrics, U. of Texas, South-west Medical School, Dallas. G.F. Strong Auditorium at 9am. Call 875-2118.

### Botany Friday Seminar Series

The Role Of Proteasome In Disease, Seed Germination And Stress Tolerance. Dr. Ladislav Malek, Biology, Lakehead U., Thunder Bay, ON. BioSciences 2000 from 12:30-1:30pm. Call 822-2133.

### Classics Lecture

Women And The Family In Late Antiquity. Averil Cameron, professor, Late Antique/Byzantine Studies, U. of London. Buchanan A205 at 12:30pm. Call 822-2889.

### FRIDAY, FEB. 8

### Vancouver Institute Saturday Night Lecture

The Integrated Circus: The New Right And The Restructuring Of Global Markets. Dean Patricia Marchak, Arts. IRC #2 at 8:15pm. Call 822-3131.

### NOTICES

### UBC Speakers Bureau

Would your group like to know more about topics ranging from World Population Problems to Family Coping With Chronic Illness? More than 300 topics to choose from. Call 822-6167 (24-hr. ans. machine).

### Hort Club Orchid Sale

Cymbidiums, Dendrobiums, Miltonia And Coelogyne, \$5-\$15. Tuesdays and Thursdays until the end of February or while quantities last. Greenhouse, West Mall at Stores Rd. from 9am-3pm. Call 822-3283.

### Graduate Student Society

Nominations For GSS Executive Positions, Jan. 31-Feb. 14. Grad Centre Front Office. Call 822-3203.

### Language Programs Conversational Classes

Spanish Immersion Program in Cuernavaca, Mexico, Mar. 2-20. Call 222-5227.

### Dorothy Somerset Studio Performance



Goodnight Desdmona, Goodmorning Juliet by Anne Marie MacDonald, directed by Edel Walsh. Jan. 29-Feb. 1 at 8pm. Admission \$6. For reservations call 822-2678.

### Fine Arts Gallery

Open Tues.-Fri. from 10am-5pm. Saturdays 12pm-5pm on. Free admission. Main Library. Call 822-2759.

### Museum Of Anthropology Exhibition

Eulachon: A Fish To Cure Humanity. MOA Gallery 5, Feb. 5-May 24, during Museum hours. Call 822-5087.

### Executive Programmes

Business seminars, Jan. 27-28: Effective Grievance Handling, \$795; Jan. 28-30: Do-It-Yourself Marketing Research, \$795. Call 822-8400.

### Statistical Consulting/Research Laboratory

SCARL is operated by the Department of Statistics to provide statistical advice to faculty and graduate students working on research problems. Forms for appointments available in Ponderosa Annex C-210. Call 822-4037.

### Dentistry Treatment Program

Participants with no natural teeth of their own are needed for a complete denture treatment. Patients accepted will be treated during Feb.-May/92. Call Mon-Fri, 10am-3pm, at 822-5668.

### Student Health Outreach

Intimacy In The 90s: Reality, Risk And Responsibility. Jan. 29-31. Sponsored by Student Health Outreach, Women Students' Office/Student Counselling/Campus Ministry. SUB Main Concourse from 10:30am-2pm. Call 822-4858.

### Weight Problems?

Women Students' Office is sponsoring a Support Group every Thursday, Jan. 16-Mar. 26 (exc. Feb. 20). Brock Hall 261 from 4-6pm. Call 822-2415.

### High Blood Pressure Clinic

Volunteers (over 18 years) needed, treated or not, to participate in clinical drug trials. Call Dr. J. Wright or Mrs. Nancy Ruedy in Medicine at 822-7134.

### Seniors Hypertension Study

Volunteers aged 60-80 years with mild to moderate hypertension, treated or not, needed to participate in a high blood pressure study. Call Dr. Wright or Nancy Ruedy in Medicine at 822-7134.

### Drug Research Study



Volunteers required for Genital Herpes Treatment Study. Sponsoring physician: Dr. Stephen Sacks, Medicine/Infectious Diseases. Call 822-7565.

### Heart/Lung Response Study

At rest and during exercise. Volunteers age 45-75 years, all fitness levels, required. No maximal testing. Scheduled at your convenience. Call Fiona Manning, School of Rehab. Medicine, 822-7708.

### Lung Disease Study

Subjects with emphysema or fibrosis needed to investigate means of improving lung function without drugs. Call Fiona Manning, School of Rehab. Medicine, 822-7708.

### Counselling Psychology Research Study

Clerical Workers—explore your stress coping skills. Clerical/secretarial staff needed to participate in a study which involves completion of one questionnaire a month for three months. Call Karen Flood at 822-9199.

### Retirement Study

Women concerned about retirement planning needed for an 8-week Retirement Preparation seminar. Call Sara Comish in Counselling Psychology at 931-5052.

### Personality Study

Volunteers aged 30 or more needed to complete a personality questionnaire. Required, 2 visits, about 3 hours total. Participants receive a free personality assessment and a \$20 stipend. Call Janice in Dr. Livesley's office, Psychiatry, Detwiller 2N2, 822-7895.

### PMS Research Study

Volunteers needed for a study of an investigational medication to treat PMS. Call Doug Keller, Psychiatry, University Hospital, Shaughnessy Site at 822-7318.

### Dermatology Acne Study

Volunteers between 14-35 years with moderate facial acne needed for 4 visits during a three month period. Honorarium paid. Call Sherry at 874-6181.

### Sun-Damaged Skin Study

Participants needed between ages of 35-70 for 9 visits over 36 weeks. Have not used retinoids for the past year. Honorarium will be paid. Call Sherry in Dermatology at 874-6181.

### Eczema Study

Volunteers 12 years of age or older needed for 4 visits over a three week period. Honorarium paid. Call Sherry in Dermatology at 874-6181.

### Memory/Aging Study

Participants between the ages of 35-45 years or 65 and over needed for study examining qualitative changes in memory. Kenny 1220. Call Paul Schmidt in Psychology at 822-2140.

### Stress/Blood Pressure Study

Learn how your body responds to stress. Call Dr. Wolfgang Linden in Psychology at 822-3800.

### Surplus Equipment Recycling Facility (SERF)



Disposal of all surplus items. Every Wednesday, 12-3pm. Tent Rentals. Depts. save GST/PST. Task Force Bldg., 2352 Health Sciences Mall. Call 822-2813.

### Student Volunteers

Find an interesting and challenging volunteer job with Volunteer Connections, UBC Placement Services, Brock 307. Call 822-9268.

### Narcotics Anonymous Meetings

Every Tuesday (including holidays) from 12:30-2pm, University Hospital, UBC Site, Room M311 (through Lab Medicine from Main Entrance). Call 873-1018 (24-hour Help Line).

### Fitness Appraisal

Administered by Physical Education and Recreation through the John M. Buchanan Fitness and Research Centre. Students \$25, others \$30. Call 822-4356.

### Faculty/Staff Badminton Club



Fridays from 6:30-9:30pm in Gym A of the Robert Osborne Centre. Cost is \$15 plus library card. Call Bernard at 822-6809 or 731-9966.

### Botanical Garden

Open daily from 10am-5pm. Free admission. Call 822-4208.

### Nitobe Garden

Open Mon.-Fri. from 10am-3pm. Closed weekends. Admission free. Call 822-6038.

Get your message across!

UBC Reports CLASSIFIEDS

Call 822-6163

# Men's swim team pursues first title in 30 years

By ABE HEFTER

In a quietly efficient, almost business-like manner—much like the demeanor of the man who guides it—the UBC men's swim team continues on its quest for a first national championship in almost 30 years.

On Feb. 7-9 in Victoria, UBC swimmers, coached by Tom Johnson, will take to the pool at the Canada West conference championships. It will be the final opportunity for the men to qualify for individual spots at the national Canadian Inter-University Athletic Union (CIAU) championships in Montreal in March. It will also be the final opportunity for UBC women to qualify.

The UBC women are the defending Canada West champs and won the CIAU title in 1984-85 and again in 1985-86. However the men haven't won a CIAU crown since

the inaugural 1964-65 season. Johnson said although the women will be hard-pressed to repeat as Canada West champions after losing some key performers going into this season, the men are strong contenders to come away with the CIAU championship.

"There is a lot of strength on this men's team right now," said Johnson, who is in his second year as coach.

"Veterans Turlough O'Hare and Kevin Draxinger, for example, are swimming extremely



Team coach Tom Johnson feels the men's team is a strong contender.

Photo by Media Services

say we're the team to beat."

O'Hare and Draxinger helped lead the men to victory earlier this month over the University of Calgary, the CIAU champions nine of the past 10 seasons. O'Hare, Draxinger, and Ron Page each won three events, while Anne Barnes, Carmen Boudreau and Sally Gilbert each won two events to lead the women to an equally convincing win.

Johnson said although the upcoming Canada West competition represents UBC's final attempt to fill out its roster for

the CIAU championships, it's important to keep the Victoria meet in perspective to avoid peaking too early.

"There's no doubt the Canada West championships are crucial for those still trying to qualify. But for our front-line swimmers, the Victoria meet has to be viewed essentially as a stepping stone to the nationals."

Johnson said some universities tend to get too pumped up for the conference championships and not have anything left when the nationals roll around. Discipline, according to Johnson, is the key to keeping your feet on the ground—or in the water, as the case may be.

"Reaching CIAU standards is a big achievement, but our swimmers will have to do more in Montreal," said Johnson.

"Nothing less than seasonal best performances at the nationals will do."

## Rings on trees tell volumes on old growth forests

By ABE HEFTER

Graduate student Andre Arsenault is literally going around in circles trying to map out the evolution of old-growth forests.

By meticulously counting tree rings and analysing the rate of growth, a procedure known as dendro-chronology, Arsenault and Botany Professor Gary Bradfield hope to understand the natural forces that come into play in old-growth forests.

"Landscapes in British Colum-

bia feature a diverse pattern of ecosystems and a variety of ecological processes," said Arsenault. "However, relatively little is known about the influence of natural disturbances on the development of these ecosystems."

Arsenault said in order to develop resource management guidelines that maintain landscape biodiversity, it's important to understand the natural disturbance patterns that affect old-growth forests.

This past summer, Arsenault

mapped out the natural disturbances of a half-hectare site of Western hemlock and redcedar on Vancouver Island. By counting the rings on dead trees from the area—in addition to noting tree size, species and location—Arsenault has been able to determine the forces of nature that were at work around each fallen tree.

"It's a bit like detective work," he said.

When a large tree falls down, a ripple effect is created. More light

can penetrate that particular area, resulting in, among other things, changes in the soil's nutrient composition and wildlife patterns in the surrounding area.

Arsenault said all of this information can be determined by the characteristics of the rings in each tree.

"This information can teach us how to grow trees more effectively and perhaps enable forest managers to recreate characteristics of old-growth forests in second-growth stands."

In this day of space-age technology and computer wizardry, Arsenault does his work the old-fashioned way: by hand. He's

currently in the process of manually counting the rings from 600 cross-sections, with more to come. Next summer he plans to investigate old-growth stands in the Capilano watershed.

"The surface of each cross-section must be cut and sanded to a fine-furniture finish. Otherwise, it's almost impossible to analyse the rings."

The rings are counted in 10-year increments. It took him one hour to count the rings in one particular Western yew that was 438 years old.

"The forest is an open book," he said. "And each tree has its own story to tell."

## Intimacy program addresses many aspects of relationships

By CONNIE FILLETTI

The realities, risks and responsibilities of intimacy in the '90s will be the focus of a three-day Student Health Outreach Program at UBC Jan. 29-31.

The program is designed to motivate students to achieve and maintain healthy relationships, said Margaret Johnston, the university's student health outreach nurse. It is a co-operative initiative among several campus student service offices, led by Student Health and including the Women Students' Office, the Student Counselling and Resources Centre, the Sexual Harrassment Office and the UBC Chaplains.

Program events will address the physical, emotional, intellectual, social and spiritual dimensions of wellness, she added.

"This approach to well-being will help with the development of the

whole person," Johnston explained. "We tend to think that sexual expression is the only form of intimacy, but this program stresses a broader con-

text of what a meaningful relationship involves, such as honesty, trust and communication."

### INTIMACY IN THE '90s SCHEDULE OF EVENTS

#### January 29 -31

10:30 am to 2 pm SUB Concourse  
Displays and information booths staffed by representatives from various off-campus agencies including Planned Parenthood and AIDS Vancouver

#### January 30

12:30 pm to 1:30 pm SUB Conversation Pit  
An open forum dealing with ethics and relationships moderated by Rev. Brad Newcombe, UBC Chaplains

#### January 31

12:20 pm to 1:30 pm SUB Auditorium  
A panel presentation on living with HIV and AIDS with speakers from the People With AIDS Society

and a panel presentation on living with HIV and AIDS.

Displays and information booths in the SUB concourse by various off-campus agencies such as Planned Parenthood, AIDS Vancouver, and People With AIDS are also planned.

In conjunction with Intimacy in the '90s, a series of workshops has been developed by the student service offices participating in the program, and will be offered to students in residence on campus.

Workshop topics include: choosing a nurturing partner; theological perspectives on the Bible, human sexuality and relationships; coping with a student partner; surviving a relationship break-up; contraception; sexually-transmitted disease; and communication in relationships.

For more information, call 822-4858.



Photo by Abe Hefter

Andre Arsenault examines tree rings as part of a study of the effects of natural disturbances on old-growth trees.

People

# Glover on Agricultural Land Commission

**Julie Glover**, associate director of UBC's Centre for Human Settlements (CHS), has been appointed to the Agricultural Land Commission.



Glover

The commission is charged with regulating the use of farmland across the province. Glover's term started in December and runs for one year.

Glover was program director at the Centre for Continuing Education prior to joining the Centre for Human Settlements in April 1990. She oversees the co-ordination of professional programs for planners and municipal officials at the CHS.

Jaeger is also the director of UBC's Centre for Advanced Technology in Microelectronics.

Science Council committee members are selected for the leadership they exhibit in their institutional, industrial and geographic communities. They help to determine council policy and direction.

The council's mandate is to identify and promote opportunities for the economic development of B.C. and to enhance the quality of life in the province through innovative applications of science and technology.

CAUSE membership includes 2,650 individuals representing 977 institutions of higher education in Canada, the United States and other countries.

**Dr. Lorne Sullivan** has been appointed head of the Division of Urology in the Faculty of Medicine.

Sullivan received his MD from the University of Saskatchewan in 1962, and underwent residency training in UBC's Urology program after his internship.

Sullivan joined the UBC faculty in 1970 after completing studies at the Memorial Sloan Kettering Cancer Institute in New York, the Massachusetts General Hospital in Boston and the Roswell Park Cancer Institute in Buffalo.

He has served as president of the Canadian Urological Association and the Canadian Academy of Urological Surgeons. Sullivan is currently the president of the western section of the American Urological Association.

Sullivan's research has focused on clinical studies in genitourinary cancer.

**Nicolas Jaeger**, assistant professor in the Department of Electrical Engineering, has been appointed to the Electronics and Communications Peer Review Committee of the Science Council of B.C.

**Diane Kent**, director of Information Systems Management at UBC, has been elected secretary-treasurer of CAUSE, the Association for the Management of Information Technology in Higher Education.

Election of the CAUSE board executive took place during the association's annual conference, held Dec. 3-6 in Anaheim, Ca. More than 1,200 higher education information technology professionals met to explore the conference theme, "Twenty years of managing change: visions for the future."

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# Book uses Hollywood to teach management

By ABE HEFTER

At times over the past three years, Associate Dean Peter Frost has felt more like a movie critic than a Commerce and Business Administration professor.

That's because Frost and two colleagues have spent hundreds of hours reviewing films for a unique teaching tool that combines movie videos and reading material.

It's the first time in North America that film clips have been formally used as the central focus of a series of exercises in a university-level text on management and organizational behavior.

Frost, along with Todd Jick of Harvard University and Robert Marx of the University of Massachusetts, has written *Management Live! The Video Book*. The book comes with several complete films on video, including Charlie Chaplin's *Modern Times*, *One Flew Over the Cuckoo's Nest*, and *Broadcast News*.

It also includes a set of video excerpts taken from television shows such as *60 Minutes*.

Frost said the book is written around a series of short movie clips that look at management and organizational behavior in a way that students can relate to.

Forexample, a clip featuring the struggle between R.P. McMurphy, played by



The acting talents of William Hurt and Holly Hunter in the film *Broadcast News* play a key role in a unique series of written exercises on management and organizational behavior.

Jack Nicholson, and Nurse Ratched, played by Louise Fletcher, in the film *One Flew Over the Cuckoo's Nest*, forms

part of the chapter on power and politics.

In *Modern Times*, Chaplin's plight is used to describe how an employee's

creativity and dignity can be killed by an organization.

The *Broadcast News* clip demon-

strates the interaction of human and technical aspects in an organization.

Frost stressed the use of video in teaching is not new and isn't meant to replace the written word or critical thought.

"We are teaching a television generation," he said.

"Students today, for better or worse, are video literate. These strategically positioned movie clips enable students to get a picture of some of the complexities of organizational life in a way they might not get through reading alone."

The project, three years in the making, was set into motion following an exhaustive effort to find an interested publisher. Frost said it has been well received by academics and students across North America.

"The videos bring a greater variety of images and stories to the classroom and act as a catalyst for discussion," he said. "Students can relate to the characters in the film clips and more fully comprehend the issues that affect the principles of management."

"The next stage in teaching with this medium may be to combine video images from different films or presentations in a way that they can be played off against each other to communicate some of the more complex and contradictory aspects of a working environment."

## Strong UBC presence on space shuttle mission

By CONNIE FILLETTI

Two UBC research experiments are being conducted aboard the space shuttle *Discovery* during NASA's first International Microgravity Laboratory (IML-1) mission which was scheduled to be launched Jan. 22.

UBC's experiments will

focus on back pain in astronauts and the separation of cells and molecules from complex mixtures, a process known as phase partitioning.

Dr. Peter Wing, head of Orthopaedic Surgery at University Hospital, Shaughnessy site, and principal investigator of the back pain study, said he suspected weightlessness was responsible for the fact that more than two-thirds of all astronauts have experienced back pain during spaceflight.

Some astronauts have reported height increases up to seven centimetres in the absence of gravity, which may be responsible for muscle spasms,

tension on back joints, increased pressure in discs, or stretching of the spinal cord and nerves.

Phase partitioning will be studied as a way of separating different kinds of molecules and cells out of complex mixtures of substances.

Principal investigator of the experiment, Dr.

Donald Brooks, said that the ultimate objective is to increase the purity of the separated cells.

Brooks, who holds a dual appointment in UBC's departments of Chemistry and Pathology,

added that phase partitioning will be of interest to medical researchers, particularly as it applies to separation and purification of cells, for use in transplants and treatment of disease.

A small roundworm, genetically designed by UBC researchers, will also take its first trip into space aboard the *Discovery*.

The worms will be exposed to cosmic ray particles in an experiment

developed by NASA's Jet Propulsion Laboratory in Pasadena, Calif. They will then be examined for mutations and other genetic damage caused by the quantity and type of cosmic ray particles.

Ann Rose, a professor of Medical Genetics and principal investigator of the UBC research team that developed the strain of roundworm, hopes to create a tool kit for the study of genetic material, as a result of the experiment.

"Such a kit may lead to a greater understanding of normal human development and an understanding of

genetic disease," Rose said.

Each of the six Canadian experiments will focus on the complicated range of human responses to the weightless environment of space, particularly those of the nervous system.

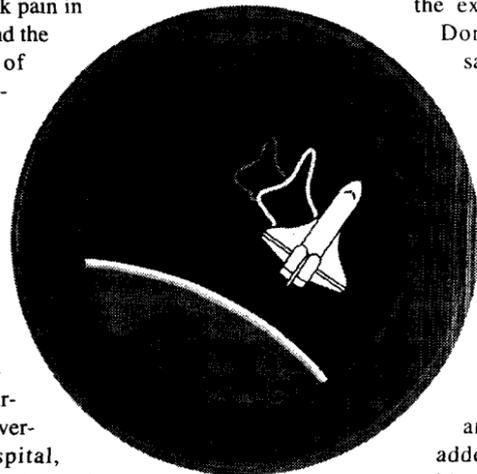
The UBC studies are two of 43 experiments being carried out for researchers around the world by nine astronauts, including Canada's first woman in space, Roberta Bondar.

As a payload specialist on the mission, she will conduct life and material science experiments during the seven-day flight.

NASA formally accepted Canada's proposal to include six space physiology experiments on IML-1 in 1988. Bondar was one of two Canadian astronauts nominated by the Canadian Space Agency to participate in the IML-1 experiments.

Canadian astronaut Ken Money will serve as an alternate payload specialist on the ground, providing the link between astronauts in the shuttle and principal investigators of the experiments.

Both Bondar and Money have been members of the Canadian Astronaut Program since 1983.



### Construction

### Updates

**Brock Hall/Student Services Building...** will consolidate into one building; the Registrar's Office, Awards and Financial Aid, Student Housing and Conferences, Disability Resource Centre and the Rick Hansen National Fellow program. Construction is expected to be complete by 1992/06.

**David Lam Management Research Centre...** will include a new Research and Placement Centre, Library, Conference area and a new "Bus Stop" cafe. Construction will be complete by 1992/02.

**First Nations Longhouse...** will incorporate teaching and study space in an environment that reflects the culture and heritage of the First Nations people. Construction has started across from the Geography Building and will continue through to its completion in mid-1992. Look forward to architectural achievement!

**Ritsumeikan/UBC House...** adjacent to Totem Park Residence will house 200 students - 100 each from UBC and Ritsumeikan University in Kyoto, Japan. This unique cultural exchange already underway will be in its new quarters by the next academic year. Construction comes to a close by mid-February.

**Social Work...** the Department of Social Work's new home started construction across from the Ponderosa Cafeteria. This building will not only bring it closer to the academic heart of the campus but will also bring improved facilities. Construction has just started and will continue to 1992/08.

**The University Services Building...** at the corner of West Mall and University Blvd., will accommodate Media Services, Plant Operations and Mail Services. This uniquely designed building is almost complete and will be ready for partial occupancy this month. Stop and take a look!

**West Parkade...** in an effort to improve surface parking due to the loss of many parking stalls during building, the new parkade adjacent to the Ponderosa Cafeteria will soon accommodate 1,200 spaces. Construction has just begun and will continue to 1992/09. In the meantime - take advantage of carpooling or cycling!

**CICSR/CS...** watch for construction to begin in March on the Centre for Integrated Computer Systems Research and the Department of Computer Sciences.

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